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**National Highway
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DYNAMIC SCIENCE, INC.
In-Depth Accident Investigation

Contract DTNH22-94-D-27058
Case DSI-96-AB-12

May, 1997

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		14. Sponsoring Agency Code	
15. Supplemental Notes			
16. Abstract <p>This case was initiated in response to reports of an airbag-related child fatality. Vehicle 1, a 1996 Oldsmobile Cutlass Supreme SL four-door driven by a 39-year-old female, was traveling southbound on a two-lane divided roadway approaching a three-leg intersection. The driver of Vehicle 1 was restrained. The right front occupant was a four-year-old female. She was wearing only the lap portion of the lap and shoulder belt system. The right rear occupant was a seven-year-old female who was restrained. Vehicle 2, a 1987 Ford Tempo four-door driven by a 47-year-old male, was initially stopped facing north in the left hand turn lane at the intersection, preparing to turn to the west. As Vehicle 1 approached the intersection, the driver of Vehicle 2 began a left hand turn. The driver of Vehicle 1 stated that she did not have time for any evasive maneuvers and the police did not report any pre-impact skidding, but it should be noted that Vehicle 1 is an ABS-equipped vehicle and it is unlikely that any skidmarks would be visible. The front of Vehicle 1 struck the right side of Vehicle 2. Vehicle 1 sustained a delta V of 22 km/h (14 MPH). Both airbags in Vehicle 1 deployed at this point. Vehicle 1 was redirected slightly to the right, went into a clockwise rotation and came to rest south of the intersection. Vehicle 2 was pushed into a clockwise rotation, coming to rest in the intersection facing south. A witness to the collision pulled his car off to the side of the road. The driver of Vehicle 1 exited her vehicle, carrying the right front occupant who was unconscious at this time. She requested assistance. The right front occupant was placed in the rear of the witness vehicle and transported to a local emergency room. This took approximately five minutes. The driver of Vehicle 2 was trapped inside his vehicle. After extrication he was transported to the hospital. The driver of Vehicle 1 complained of chest injuries. The right rear passenger complained of right leg injuries. The right front passenger sustained head and chest injuries and was pronounced dead at 1950 hours, a little more than 2-1/2 hours after the collision. It appears that the driver braked prior to impact. The right front occupant was set in motion, and rotated about the lap belt. Her left arm was struck by the module cover and her face and chest struck by the deploying airbag. Vehicle 1 sustained moderate damage (12FDEW2) and was towed from the scene and placed into secure police storage. Vehicle 2 was towed from the scene due to damage.</p>			
17. Key Words Air bag, deployment, crash, child		18. Distribution Statement	
19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No of pages	22. Price

TECHNICAL SUMMARY

CONTRACTOR: Dynamic Science, Inc.
CONTRACT NUMBER: DTNH22-94-D-27058
CASE NUMBER: Case DS96-012

This case was initiated in response to reports of an airbag-related child fatality.

This collision occurred in December, 1996 at 1717 hours. The weather was clear and the roadway dry.

Vehicle 1, a 1996 Oldsmobile Cutlass Supreme SL four-door driven by a 39-year-old female, was traveling southbound on a two-lane divided roadway approaching a three-leg intersection. The driver of Vehicle 1 was restrained. The right front occupant was a four-year-old female. She was wearing only the lap portion of the lap and shoulder belt system. The right rear occupant was a seven-year-old female who was restrained. Vehicle 2, a 1987 Ford Tempo four-door driven by a 47-year-old male, was initially stopped facing north in the left hand turn lane at the intersection, preparing to turn to the west.

As Vehicle 1 approached the intersection, the driver of Vehicle 2 began a left hand turn. The driver of Vehicle 1 stated that she did not have time for any evasive maneuvers and the police did not report any pre-impact skidding, but it should be noted that Vehicle 1 is an ABS-equipped vehicle and it is unlikely that any skidmarks would be visible. The front of Vehicle 1 struck the right side of Vehicle 2. Vehicle 1 sustained a delta V of 22 km/h (14 MPH). Both airbags in Vehicle 1 deployed at this point. Vehicle 1 was redirected slightly to the right, went into a clockwise rotation and came to rest south of the intersection. Vehicle 2 was pushed into a clockwise rotation, coming to rest in the intersection facing south.



Figure 1. Exterior of Vehicle 1.

A witness to the collision pulled his car off to the side of the road. The driver of Vehicle 1 exited her vehicle, carrying the right front occupant who was unconscious at this time. She requested assistance. The right front occupant was placed in the rear of the witness' vehicle and transported to a local emergency room. This took approximately five minutes. The driver of Vehicle 2 was trapped inside his vehicle. After extrication he was transported to the hospital.

The driver of Vehicle 1 complained of chest injuries. The right rear passenger complained of right leg injuries. The right front passenger sustained head and chest injuries and was pronounced dead at 1950 hours, a little more than 2-1/2 hours after the collision.

It appears that the driver of Vehicle 1 braked prior to impact. The right front occupant was set in motion, and rotated about the lap belt. Her left arm was struck by the module cover and her face and chest struck by the deploying airbag.

Vehicle 1 sustained moderate damage (12FDEW2) and was towed from the scene and placed into secure police storage. Vehicle 2 was towed from the scene due to damage.

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The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the National Highway Traffic Safety Administration.

The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

DYNAMIC SCIENCE, INC.
ACCIDENT INVESTIGATION
CASE NUMBER: DSI-96-AB-12

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ACCIDENT DATA:**Location:****Area/Type:**

Urban

Date/Time:

1996 / 1717

Accident Type:

Vehicle v. Vehicle / Front to Side

Injury Severity:**Vehicle 1:**

Driver, no codeable injuries

RF occupant, AIS=3, fatally injured

RR occupant, no codeable injuries

Vehicle 2:

Injured, unknown severity

AMBIENCE:**Viewing Conditions:**

Good

Cloud Cover:

None

Precipitation:

None

Temperature:

14 to -1° C (57 to 31° F)

Road Surface:

Dry

ROADWAY:

	VEHICLE 1	VEHICLE 2
Type:	Business	Business
Width:	19.7 M (64.7 ft.)	19.7 M (64.7 ft.)
Traffic Density:	Light to moderate	Light to moderate
Median:	Curbed	None
Edge:	Curbed median on left, paved bituminous shoulder on right	Paved driveway / parking lot area on right, paved asphalt shoulder on right
Surface:	Asphalt	Asphalt
Reported Defects:	None	None
Co-efficient of Friction (est.):	0.70	0.70
Vertical Alignment:	Level	Level
Horizontal Alignment:	Straight @ intersection, slight left-hand curve	Straight

Traffic Controls:

	VEHICLE 1	VEHICLE 2
Signals:	None	None
Signs:	None applicable	None applicable
Speed Limit:	72 km/h (45 MPH)	72 km/h (45 MPH)
Markings:	Dashed white lines to the right, solid yellow line to the left adjacent to the median	Triple yellow lines to left, double white lines to right

VEHICLES:

	VEHICLE 1	VEHICLE 2
Description:	1996 Oldsmobile Cutlass Supreme SL four-door	1987 Ford Tempo four- door
Odometer:	51175 km (31800 miles)	Unknown
Engine:	3.1 L V6 MFI	2.3 L L4
Vehicle Modifications:	None	None noted
Tire Condition:	Good	Unknown
Manual Restraints:	3-point loop lap and shoulder belt with shoulder retractor and end release adjustment for LF/RF; 3-point loop lap and shoulder belt with shoulder retractor, end release adjustment, and child cinch retractor for LR/RR; lap belt for MR.	Unknown
Automatic Restraints:	Supplemental Restraint System (driver's and passenger's side airbags)	None
Reported Defects:	None	None
Cargo:	None	Unknown
Windshield Damage:	Damaged by occupant contact and the airbag module cover	Unknown
Fleet:	None	None
Tow Status:	Towed, due to damage	Towed, due to damage

VEHICLE DAMAGE:

	VEHICLE 1	VEHICLE 2
Object Struck:	02	01
Event Number:	01	01
CDC:	12FDEW2	Unknown
Maximum Crush:	29.5 cm @C4-C5	Unknown

Bumper knocked off during collision. The bumper system has a soft fascia and uses a honeycomb absorber with a rigid reinforcing bar.

VEHICLE VELOCITY ESTIMATES:

	VEHICLE 1	VEHICLE 2
Impact Speed: (estimated)	63 km/h (39.4 MPH)	43 km/h (26.9 MPH)
Total Delta V:	22 km/h (14 MPH)	32 km/h (20 MPH)
Longitudinal Delta V:	-22 km/h (-14 MPH)	-18 km/h (-11 MPH)
Lateral Delta V:	2 km/h (1 MPH)	-26 km/h (-16 MPH)
Energy Dissipation:	36648 joules (27174 ft-lb)	50343 joules (37126 ft-lb)

Delta V calculations based upon missing vehicle algorithm using default stiffness values.

Impact speed estimated using 360 linear momentum method (see below).

Vehicle 1 Weight = 3659 pounds
 Vehicle 1 Approach Angle = 0 degrees
 Vehicle 1 Departure Angle (theta) = 11 degrees
 Vehicle 1 Departure Speed = 32 MPH
 Vehicle 2 Weight = 2544 pounds
 Vehicle 2 Approach Angle (psi) = 100 degrees
 Vehicle 2 Departure Angle (phi) = 69 degrees
 Vehicle 2 Departure Speed = 19 MPH

$$V2 = (W1 * V3 * \sin(\theta)) / (W2 * \sin(\psi) + (V4 * \sin(\phi)) / \sin(\psi))$$

$$V2 = 3659 * 32 * \sin(11) / 2544 * \sin(100) + 19 * \sin(69) / \sin(100)$$

$$V2 = 3659 * 32 * .19080 / 2544 * .98480 + 19 * .93358 / .98480$$

$$V2 = 22341. / 2505.3 + 17.738 / .98480$$

$$V2 = 8.9174 + 18.011$$

$$V2 = 26.929 \text{ MPH}$$

$$V1 = S3 * \text{Cos}(\text{theta}) + (W2 * V4 * \text{Cos}(\text{phi})) / W1 - (W2 * V2 * \text{Cos}(\text{psi})) / W1$$

$$V1 = [32 * \text{Cos}(11)] + [2544 * 19 * \text{Cos}(69) / 3659] - [2544 * 26.929 * \text{Cos}(100) / 3659]$$

$$V1 = [32 * .98162] + [2544 * 19 * .35836 / 3659] - [2544 * 26.929 * -.1736 / 3659]$$

$$V1 = 31.412 + 4.7341 - -4.676$$

$$V1 = 39.397 \text{ MPH}$$

COLLISION SEQUENCE:

Pre-Crash: Vehicle 1, a 1996 Oldsmobile Cutlass Supreme SL four-door driven by a 39-year-old female, was traveling southbound on a two-lane divided roadway approaching a three-leg intersection. The driver of Vehicle 1 was restrained. The right front occupant was a four-year-old female. She was restrained using only the lap belt. The right rear occupant was a seven-year-old female who was restrained. Vehicle 2, a 1987 Ford Tempo four-door driven by a 47-year-old male, was initially stopped facing north in the left hand turn lane at the intersection, preparing to turn to the west

Crash: As Vehicle 1 approached the intersection, the driver of Vehicle 2 began a left hand turn. The driver of Vehicle 1 stated that she did not have time for any evasive maneuvers and the police did not report any pre-impact skidding, but it should be noted that Vehicle 1 is an ABS-equipped vehicle and it is unlikely that any skidmarks would be visible. Given the occupant kinematics, it is believed that there was some pre-impact braking. The front of Vehicle 1 struck the right side Vehicle 2. Vehicle 1 sustained a delta V of 22 km/h (14 MPH). Both airbags in Vehicle 1 deployed at this point.

Post Crash: Vehicle 1 was redirected slightly to the right, went into a clockwise rotation, and came to rest facing generally toward the north approximately 32 M (105 ft) south of the impact area. Vehicle 2 was pushed into a clockwise rotation, coming to rest in the intersection facing toward the south. A witness to the collision pulled his car off to the side of the road. The driver of Vehicle 1 exited her vehicle, carrying the right front occupant who was unconscious at this time. She requested assistance. The right front occupant was placed in the rear of the witness vehicle and transported to a local emergency room. This took approximately five minutes. The driver of Vehicle 2 was trapped inside his vehicle. After extrication he was transported to the hospital.

The driver of Vehicle 1 complained of chest injuries. The right rear passenger complained of right leg injuries. The right front passenger sustained head and chest injuries and was pronounced dead at 1950 hours, a little more than 2-1/2 hours after the collision.

Occupant Kinematics:

The right front occupant of Vehicle 1 was wearing only the lap portion of the lap and shoulder belt system. There is scoring on the D-ring indicating loading and there is injury evidence which indicates no shoulder belt usage.

It appears that the right front occupant was turned somewhat to the right. The lap belt was fastened. Prior to impact, the driver of Vehicle 1 braked. The right front occupant pivoted about the lap belt. Her head, torso, and hands went forward. Prior to impact, this occupant's left arm was above and somewhat to the left of the center of the module cover. Her waist would have been loading and in contact with the lap belt. At impact, the airbag deployed. The module cover was forced upward toward the windshield. This motion caused the module to strike and contuse the underside of this occupant's left arm. It also seems to have diverted the normal module cover motion to the right (see Figure 4). Her arm and hand were forced upward and the top side of her left hand struck and fractured the windshield. The deploying airbag struck her primarily on the left side of her face causing numerous abrasions, a fractured mandible, and brain contusion. The airbag also contacted the left posterior portion of her torso causing fractured ribs. It appears that the splenic lacerations and a liver laceration were caused due to loading from the lap belt. The right arm was flung backward and struck some unknown objects.

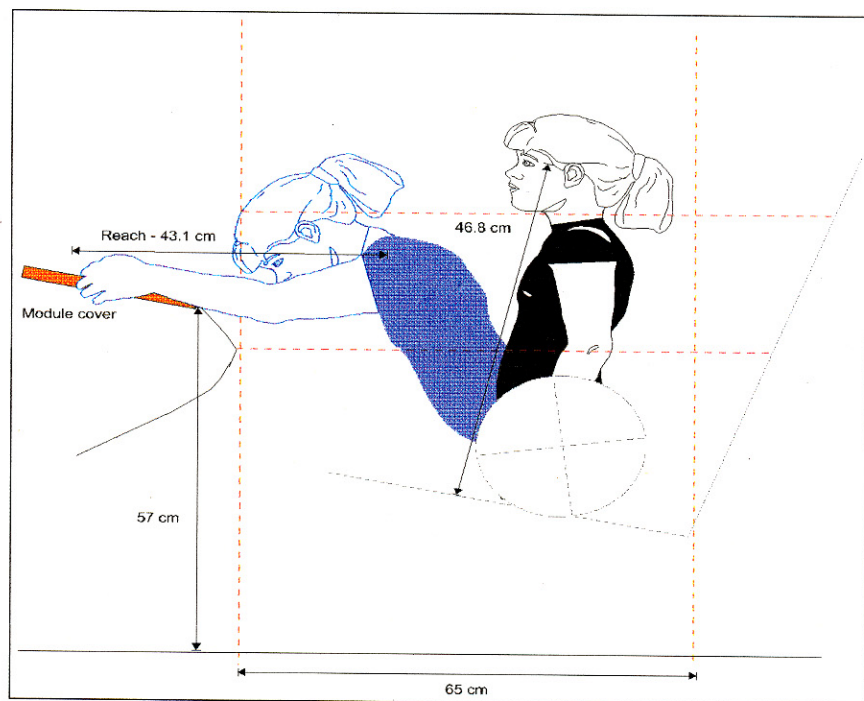


Figure 2. Right front occupant kinematics

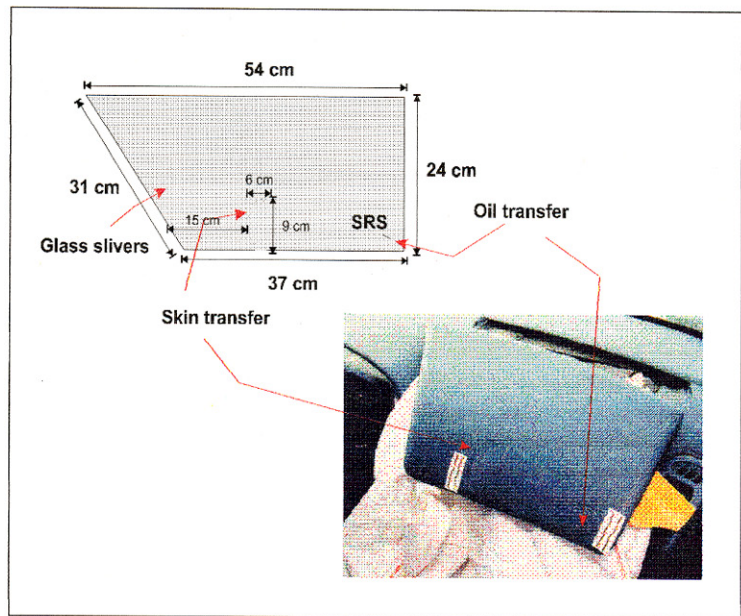


Figure 3. Module cover, right front airbag.

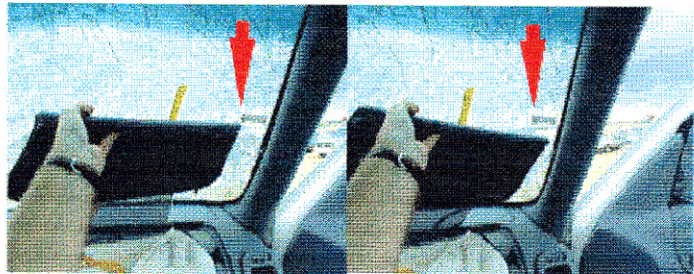


Figure 4. Motion of module cover due to left side loading.

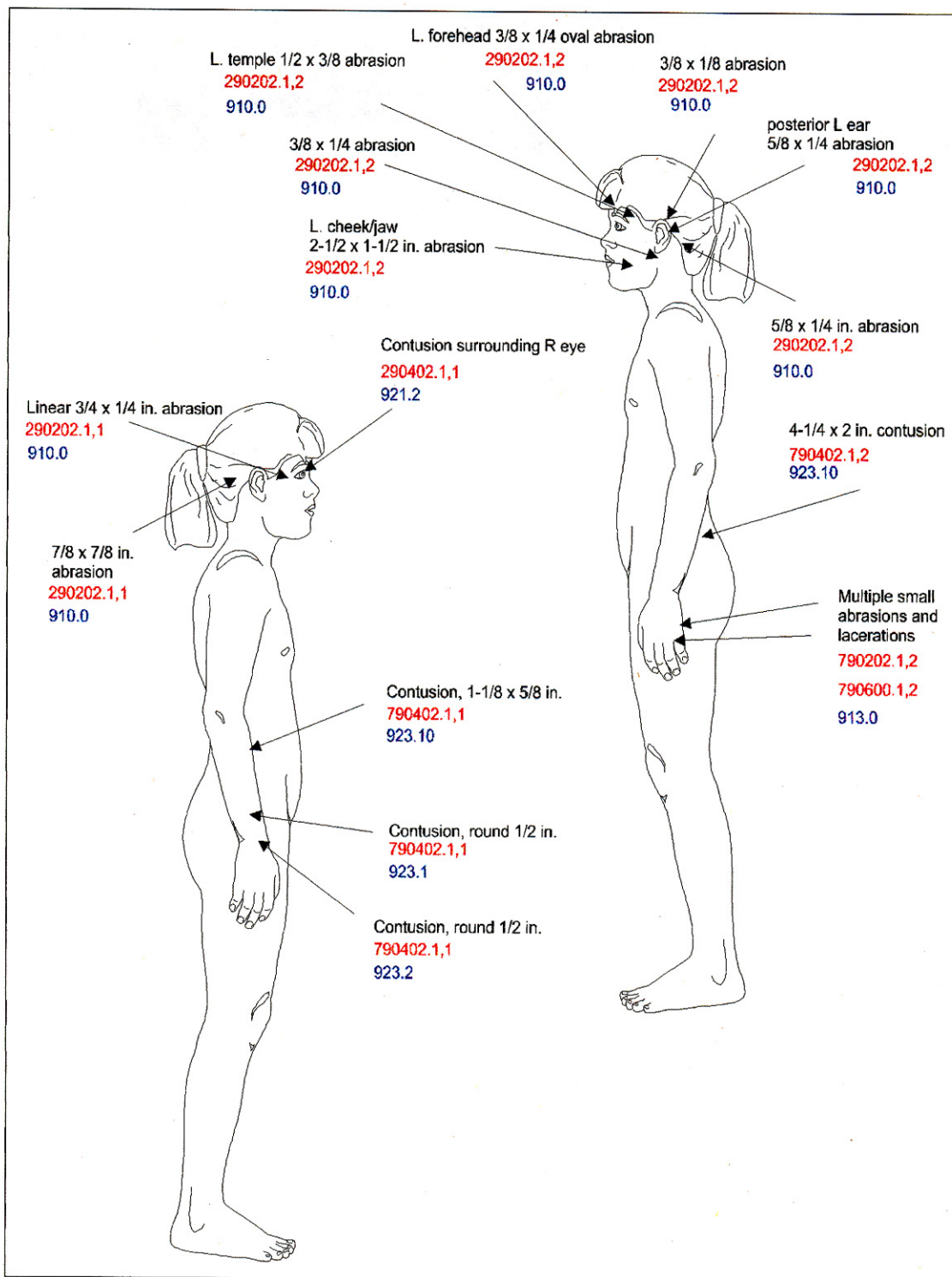


Figure 5. Right front occupant injuries

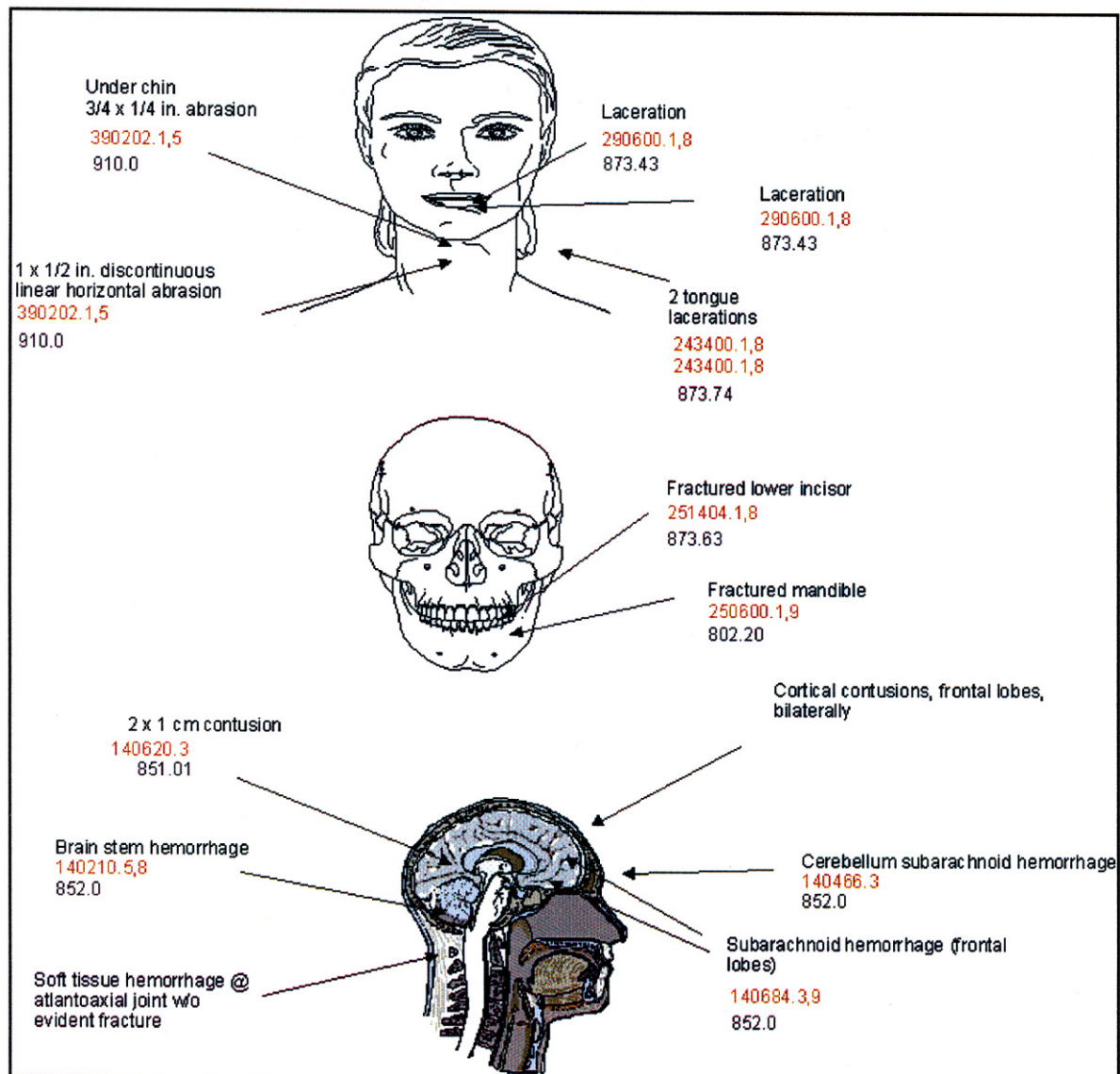


Figure 6. Right front occupant injuries

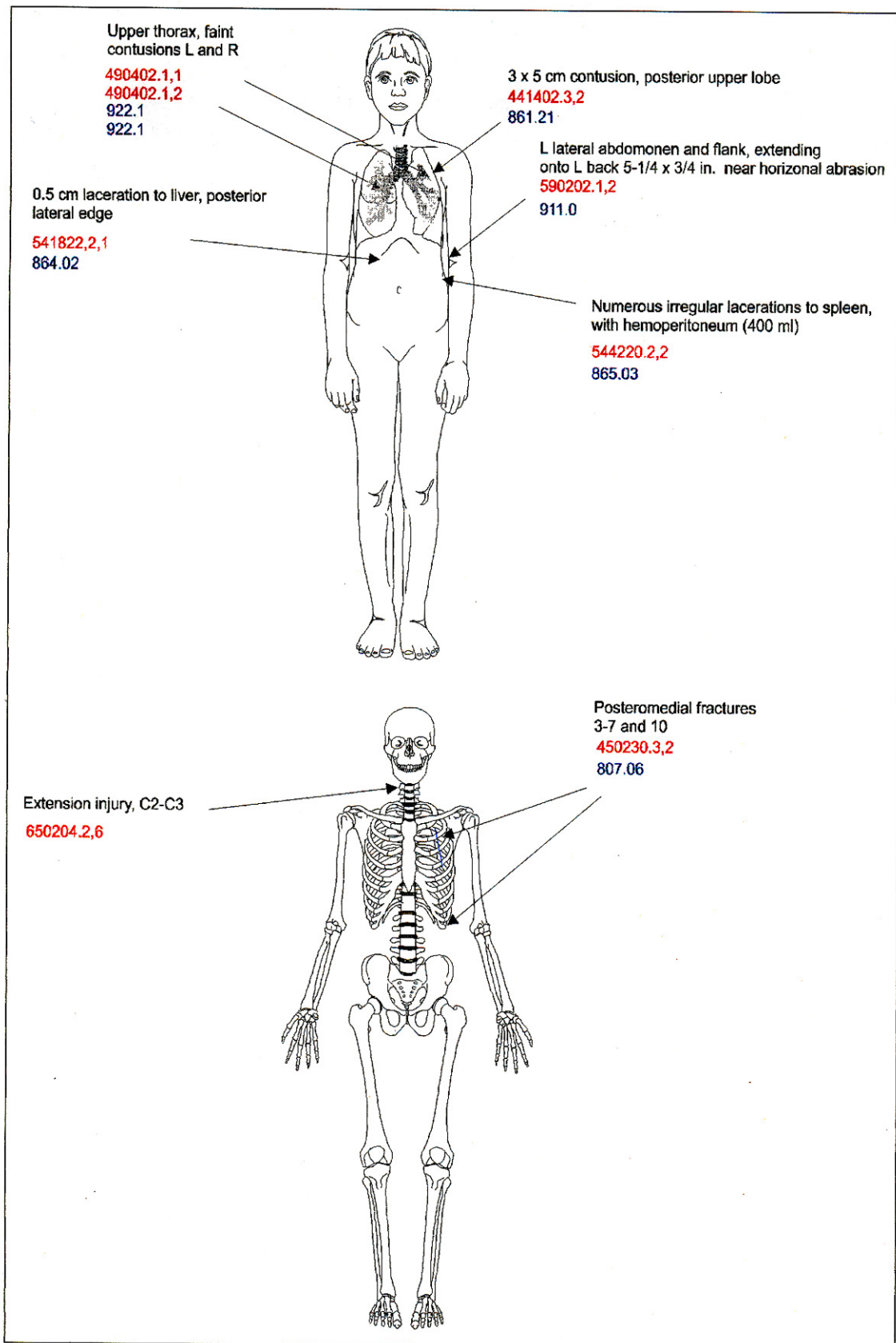


Figure 7. Right front occupant injuries

Airbag System:

Vehicle 1 was equipped with a driver's and passenger's side supplement restraint system. The left front airbag module uses an "I" tear pattern. The airbag is 63 cm in diameter and there are nine folds. The right front airbag is top-mounted and the module uses a webbing attached design. Figures 8 and 9 show the design of the right front air bag module cover. The airbag is 56 cm by 57 cm tall. The maximum excursion puts the leading edge of the airbag just beyond the middle of the seat at its farthest back position (see Figure 10).

Scene Clearance:

Both vehicles were towed from the scene due to damage.

Safety Standards:

There were no violations of Federal Motor Vehicle Safety Standards and Regulations found during the inspection of the case vehicle.



Figure 8. Module cover.

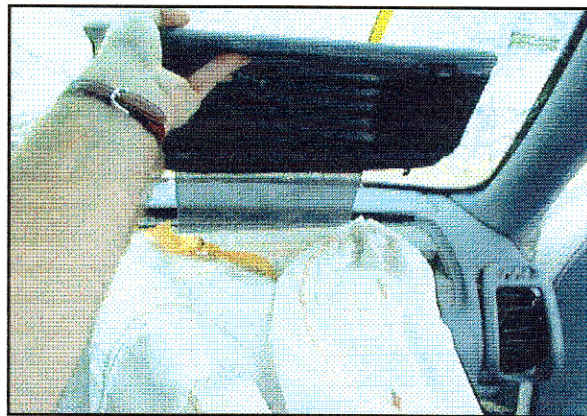


Figure 9. Module cover contact to windshield.



Figure 10. Maximum excursion, right front airbag.

DRIVER AND OTHER OCCUPANTS:**VEHICLE 1**

	DRIVER	OCCUPANT 2
Age/Sex:	39/Female	4/Female
Seated Position:	Left front	Right front
Seat Type:	Bucket	Bucket
Height:	Unknown	112 cm (44 in.)
Weight:	Unknown	17 kg (38 lbs.)
Occupation:	Unknown	None
Pre-existing Medical Condition:	Unknown	None noted
Alcohol/Drug Involvement:	None	None
Driving Experience:	≈20 years	NA
Body Posture:	Normal, upright	Facing right
Hand Position:	Unknown, presumed both on steering wheel	Unknown
Foot Position:	Right foot on brake, left on floor	Unknown
Restraint Usage:	Lap and shoulder belts used	Lap portion used
Additional Occupants:	Yes	

DRIVER AND OTHER OCCUPANTS:**VEHICLE 1****Occupant # 3**

Age/Sex:	7/Female
Seated Position:	Right rear
Seat Type:	Bench
Height:	Unknown
Weight:	Unknown
Occupation:	None
Pre-existing Medical Condition:	Unknown
Alcohol/Drug Involvement:	None
Driving Experience:	NA
Body Posture:	Unknown
Hand Position:	Unknown
Foot Position:	Unknown
Restraint Usage:	Lap and shoulder used
Additional Occupants:	None

DRIVER AND OTHER OCCUPANTS (con't):**VEHICLE 2****DRIVER**

Age/Sex:	47/Male
Seated Position:	Left front
Seat Type:	Bucket
Height:	Unknown
Weight:	Unknown
Occupation:	Unknown
Pre-existing Medical Condition:	Unknown
Alcohol Involvement:	None
Driving Experience:	≈30 years
Body Posture:	Unknown
Hand Position:	Unknown
Foot Position:	Right presumed to be on accelerator, left on floorboard
Restraint Usage:	Seatbelts not used, per police
Additional Occupants:	None

INJURIES:**Vehicle 1**

	<u>INJURY</u>	<u>OIC CODE</u>	<u>ICD-9</u>	<u>SOURCE</u>
DRIVER:	Complained of pain to chest			
R/F OCCUPANT:	Brain stem hemorrhage	140210.5,8	852.0	Airbag
	3 x 5 cm contusion, posterior upper lobe of left lung	441402.3,2	861.21	Airbag
	Cerebellum subarachnoid hemorrhage	140466.3,6	852.0	Airbag
	Posteromedial fractures to ribs 3-7, and 10 with hemothorax	450232.4,2	807.06	Airbag
	Subarachnoid hemorrhage (frontal lobes)	140684.3,9	852.0	Airbag
	Cortical contusions, frontal lobes, bilaterally plus 1 2 x 1 cm contusion to the right posterior parietal region	140622.3,3	851.01	Airbag
	Parenchall disruption. Numerous irregular lacerations to spleen with hemoperitoneum (400 ml)	544226.4,2	865.03	Lap belt
	0.5 cm laceration to liver, posterior to lateral edge	541822.2,1	864.02	Lap belt
	Upper thorax, faint contusions left and right	490402.1,1 490402.1,2	922.1 922.1	Unknown
	Extension injury, C2-C3	650204.2,6		Airbag
	3/4 x 1/4 in. abrasion under chin	390202.1,5	910.0	Airbag
	1 x 1/2 in. discontinuous linear horizontal abrasion on neck	390303.1,5	910.0	Airbag
	Lip lacerations (2)	290600.1,8 290600.1,8	873.43 873.43	Airbag
	Tongue lacerations (2)	243400.1,8 243400.1,8	873.74 873.74	Airbag
	Fractured lower incisor	251404.1,8	873.63	Airbag
	Fractured mandible	250600.1,9	802.20	Airbag
	Left temple, 1/2 x 3/8 in. abrasion	290202.1,2	910.0	Airbag

<u>INJURY</u>	<u>OIC CODE</u>	<u>ICD-9</u>	<u>SOURCE</u>
2-1/2 x 1-1/2 in. abrasion left check and jaw	290202.1,2	910.0	Airbag
3/8 x 1/4 in. oval abrasion left forehead	290202.1,2	910.0	Airbag
3/8 x 1/8 in. abrasion above left ear	290202.1,2	910.0	Airbag
5/8 x 1/4 in. abrasion to left ear	290202.1,2	910.0	Airbag
5/8 x 1/4 in. abrasion posterior to left ear	290202.1,2	910.0	Airbag
Linear 3/4 x 1/4 in. abrasion to right side of face	290202.1,1	910.0	Airbag
7/8 x 7/8 in. abrasion to parietal scalp	290202.1,1	910.0	Unknown
Round 1/2 in. contusion to right distal forearm	790402.1,1	923.1	Unknown
1-1/8 x 5/8 in. contusion to right proximal forearm	790402.1,1	923.10	Unknown
Round 1/2 in. contusion to right wrist	790402.1, 1	923.2	Unknown
4-1/3 x 2 in. contusion to left posterior proximal left forearm	790402.1,2	923.10	Airbag module cover
Small abrasions to back side of left hand	790202.2,2	913.0	Windshield
Small lacerations to back side of left hand	790600.1,2	913.0	Windshield

**R/F
OCCUPANT:**

Complained of pain to right leg

Vehicle 2

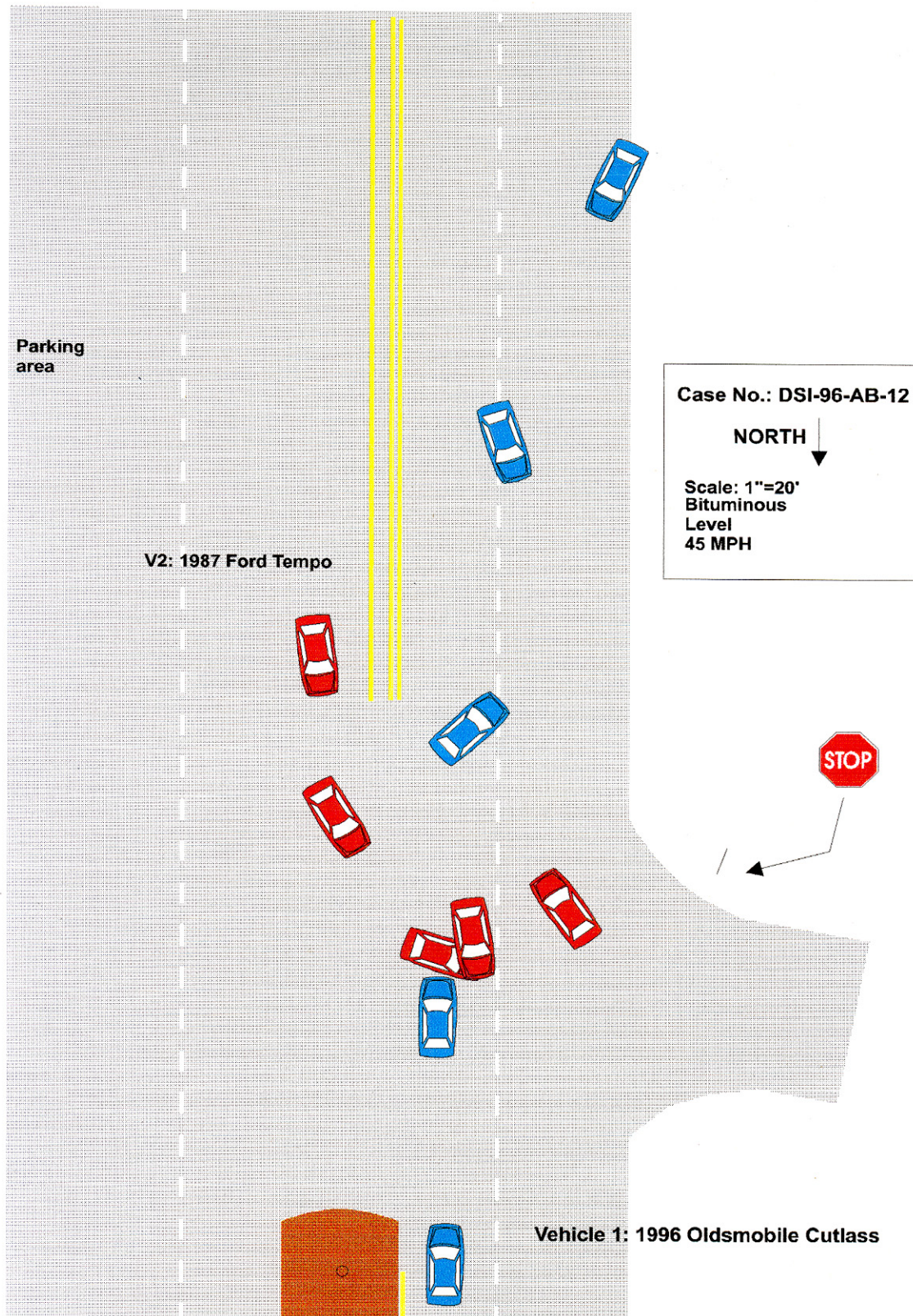
DRIVER:

<u>INJURY</u>	<u>OIC CODE</u>	<u>ICD-9</u>	<u>SOURCE</u>
Injured, unknown severity			

Abbreviations Used In Scene And Photographic Documentation

ft	Feet
in	Inches
AIS	Abbreviated Injury Scale
BLF	Begin Left Front
BLR	Begin Left Rear
BRF	Begin Right Front
BRR	Begin Right Rear
CBE	Cab Behind Engine
CCW	Counterclockwise
CDC	Collision Deformation Classification
CG	Center of Gravity
CM	Centimeter
COE	Cab Over Engine
CW	Clockwise
E, EB	East, Eastbound
ELF	End Left Front
ELR	End Left Rear
ERF	End Right Front
ERR	End Right Rear
FRP	Final Rest Position
I	Interstate Highway
IP	Intermediate Point
KG	Kilogram
KPH	Kilometers Per Hour
LF	Left Front
LR	Left Rear
M	Meter
N, NB	North, Northbound
NE	Northeast
NW	Northwest
PDOF	Principal Direction of Force
POI	Point of Impact
RF	Right Front
RL	Reference Line
RP	Reference Point
RR	Right Rear
S, SB	South, Southbound
SE	Southeast
SW	Southwest
T	Time or Elapsed Time (in seconds)
V1	Vehicle Number 1
W, WB	West, Westbound

Diagram



COLLISION MEASUREMENTS

Case Number DSI-96-AB-12

Reference Point: Utility pole on median

Reference Line: Left lane marking of NB left turning lane

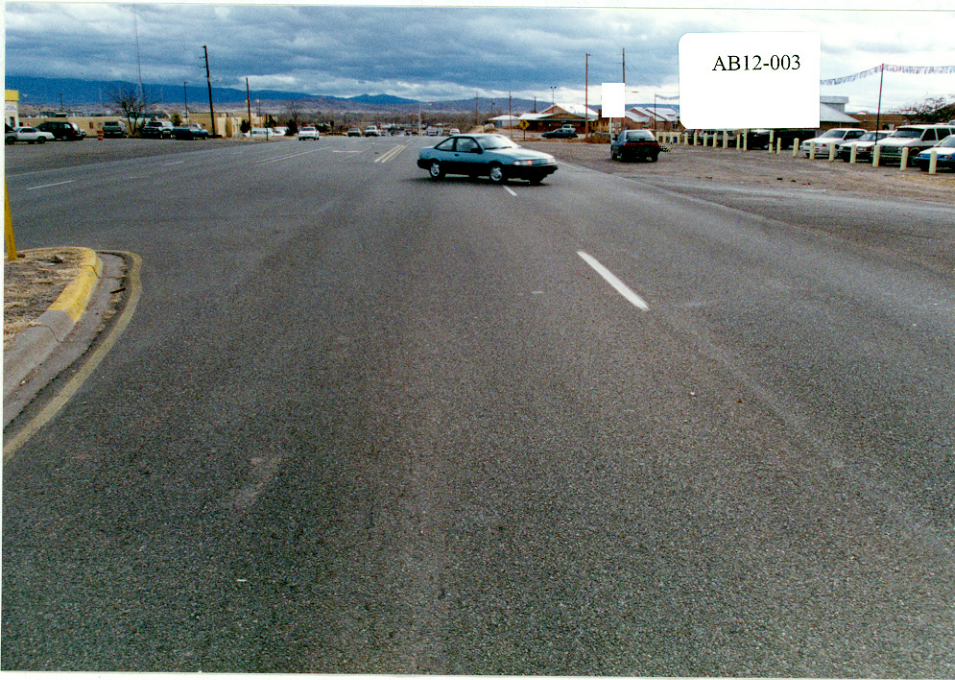
DATA POINT	LONGITUDINALS	LATERALS
Southbound lanes		
Median	0	5.4 M (16.3 ft.) ERL
Lane 2	0	4 M (12.1 ft.) WRL
Lane 1	0	7.4 M (24.4 ft.) WRL
Shoulder	0	9.8 M (32.1 ft.) WRL
Northbound lanes		
Turn lane	0	4.9 M (16.3 ft.) ERL
Lane 2	0	8.9 M (29.2 ft.) ERL
Lane 1	0	12.3 M (40.3 ft.) ERL
POI	13.6 M (44.5 ft.) SRP	
Vehicle 2 FRP		
LR	14.1 M (46.4 ft.) SRP	6.6 M (21.7 ft.) WRL
LF	16.5 M (54 ft.) SRP	5.6 M (18.25 ft.) WRL
Vehicle 1 FRP		
RF	45.4 M (149.1 ft.) SRP	8.1 M (26.7 ft.) WRL
RR	48.8 M (160.3 ft.) SRP	9.1 M (30 ft.) WRL
Asphalt		
Level		

PHOTO INDEX

Case Number: DSI-96-AB-12

PHOTO NO.	VEHICLE NO.	DIRECTION OF PICTURE	SUBJECT MATTER
1-2	1	South	Path to area of impact.
3	1	South	Area of impact.
4	1	North	Looking back along the path of travel.
5	1	North	Looking back along the path of vehicle from area of final rest.
6-7	2	North	Path to area of impact.
8	2	North	Area of impact.
9-10	2	South	Looking back along the path of travel.
11-32	2	CW	Exterior of vehicle.
33-77	2	NA	Interior of vehicle. Note: #40-42 shows blood drip pattern #50-52 shows module contact with windshield. #53-56 shows hand contact #58 shows extent of module contact #62 shows material stuck behind mirror #65-72 shows contact to module cover









































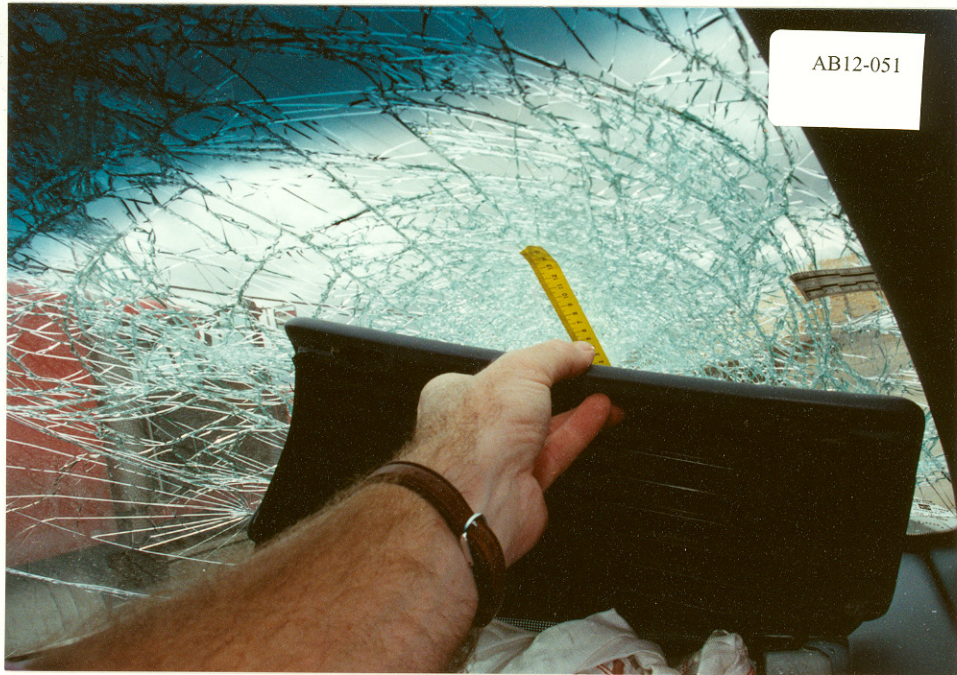


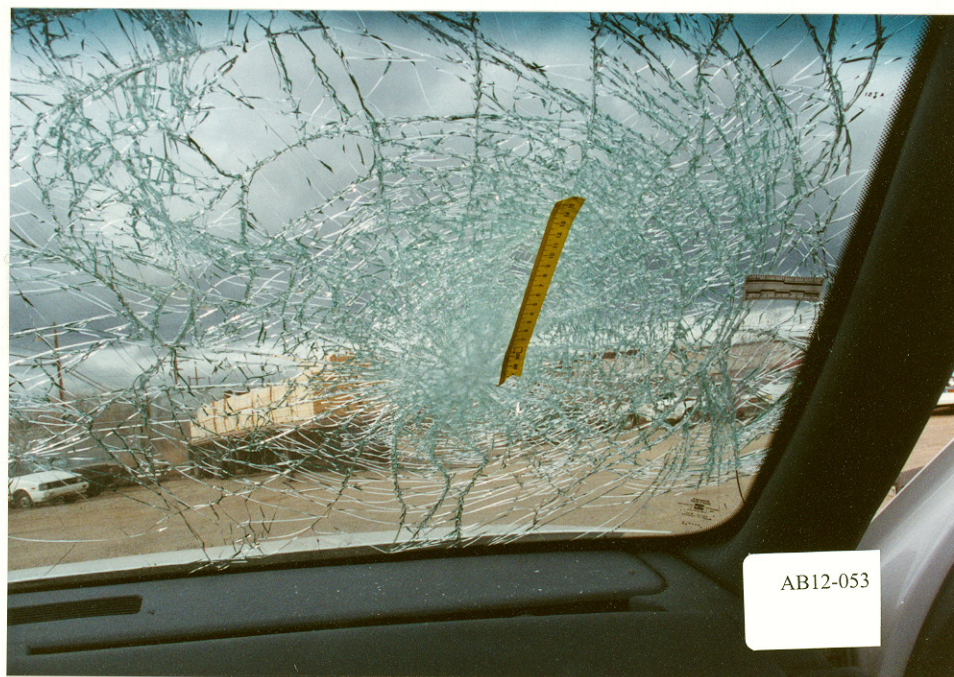


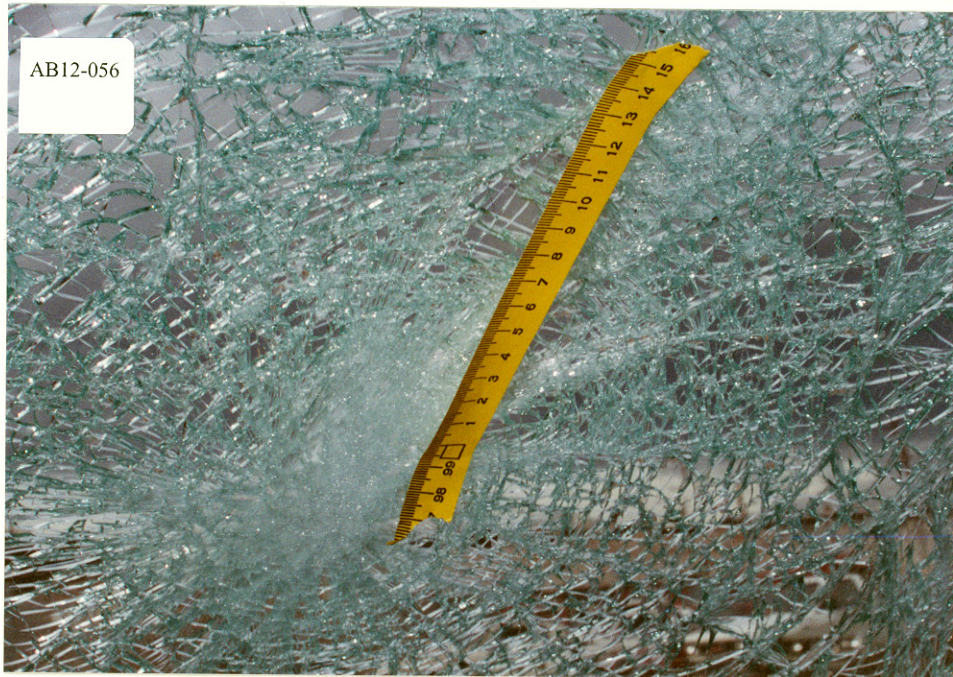


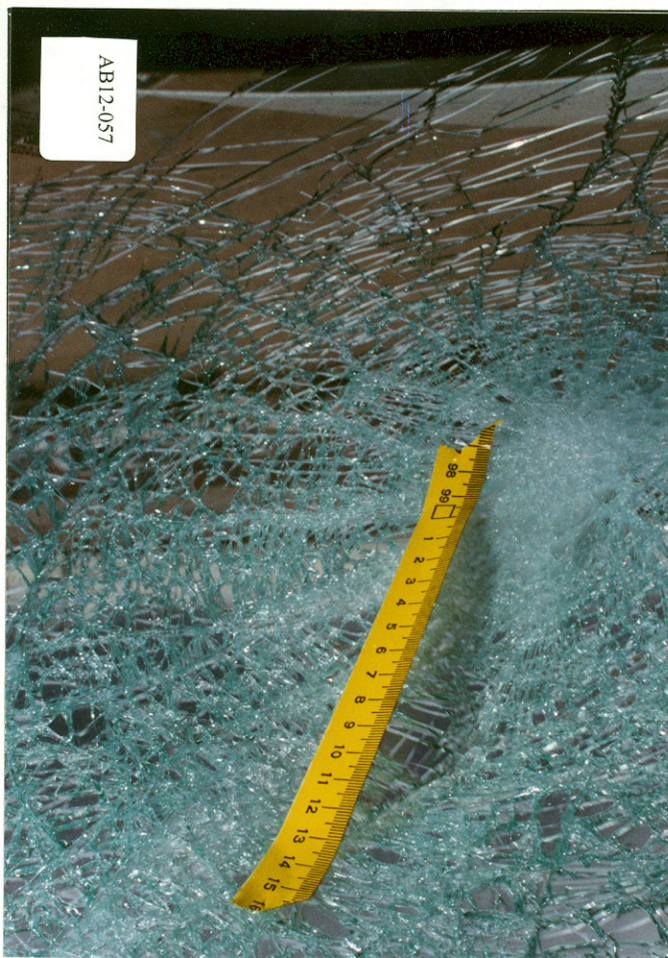


















AB12-063



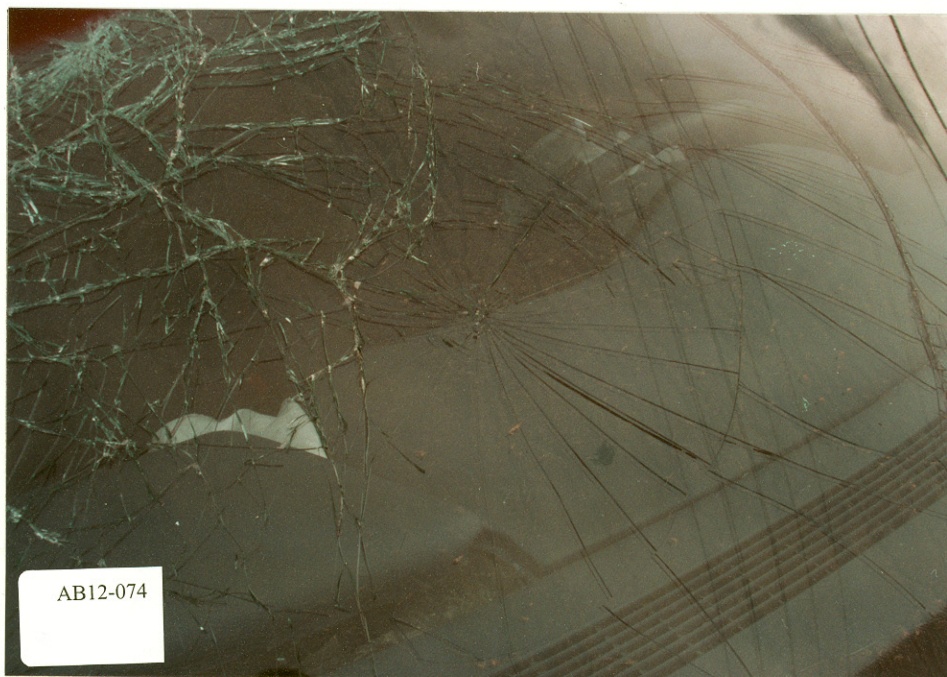
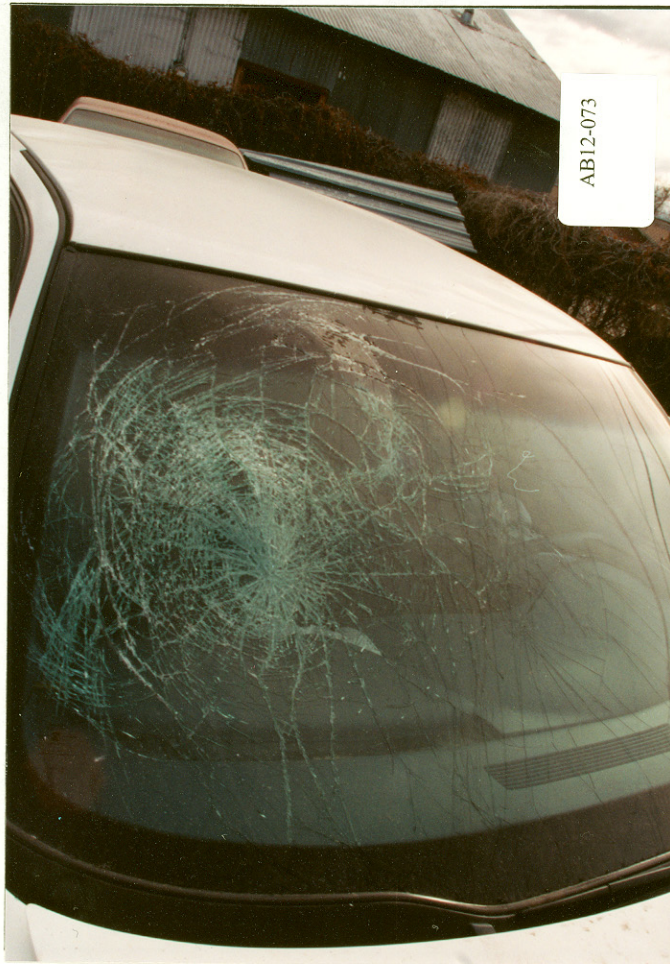
AB12-064

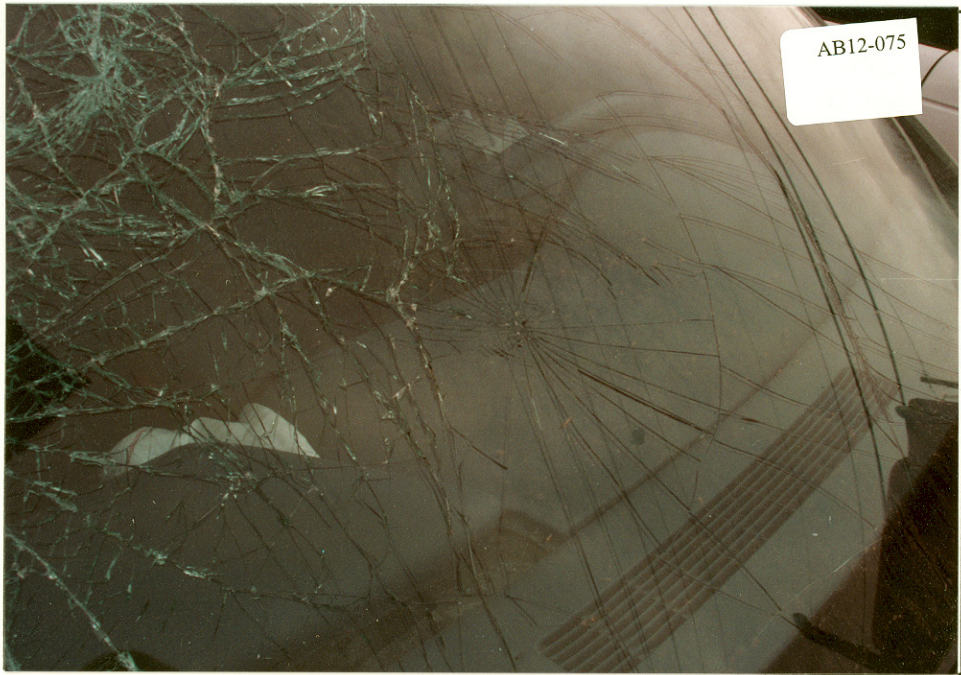














Upper thorax, faint
contusions L and R

490402.1,1
490402.1,2
922.1
922.1

3 x 5 cm contusion, posterior upper lobe

441402.3,2
861.21

L lateral abdomen and flank, extending
onto L back 5-1/4 x 3/4 in. near horizontal abrasion

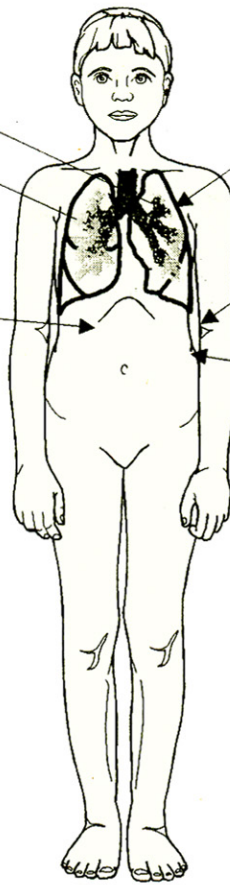
590202.1,2
911.0

0.5 cm laceration to liver, posterior
lateral edge

541822.2,1
864.02

Numerous irregular lacerations to spleen,
with hemoperitoneum (400 ml)

544220.2,2
865.03

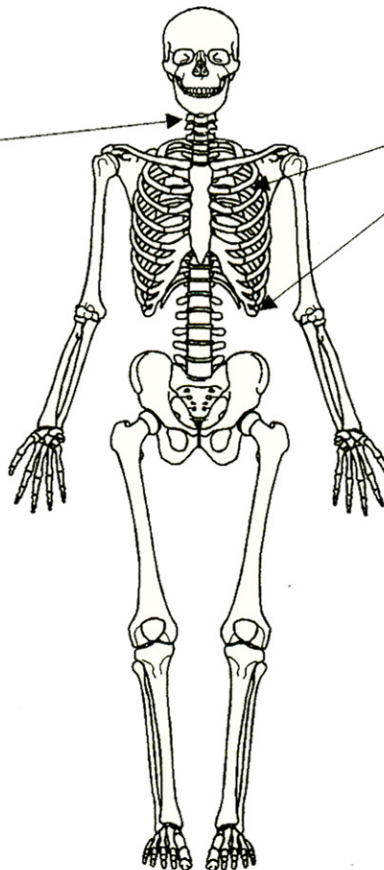


Posteromedial fractures

3-7 and 10
450230.3,2
807.06

Extension injury, C2-C3

650204.2,6



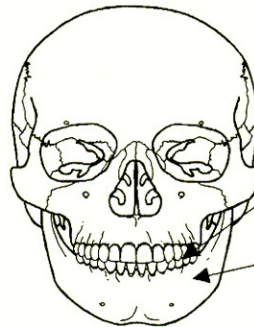
Under chin
3/4 x 1/4 in. abrasion
390202.1,5
910.0

Laceration
290600.1,8
873.43

Laceration
290600.1,8
873.43

1 x 1/2 in. discontinuous
linear horizontal abrasion
390202.1,5
910.0

2 tongue
lacerations
243400.1,8
243400.1,8
873.74



Fractured lower incisor
251404.1,8
873.63

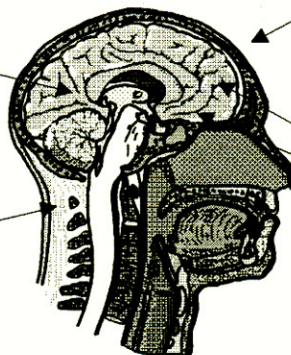
Fractured mandible
250600.1,9
802.20

Cortical contusions, frontal lobes,
bilaterally

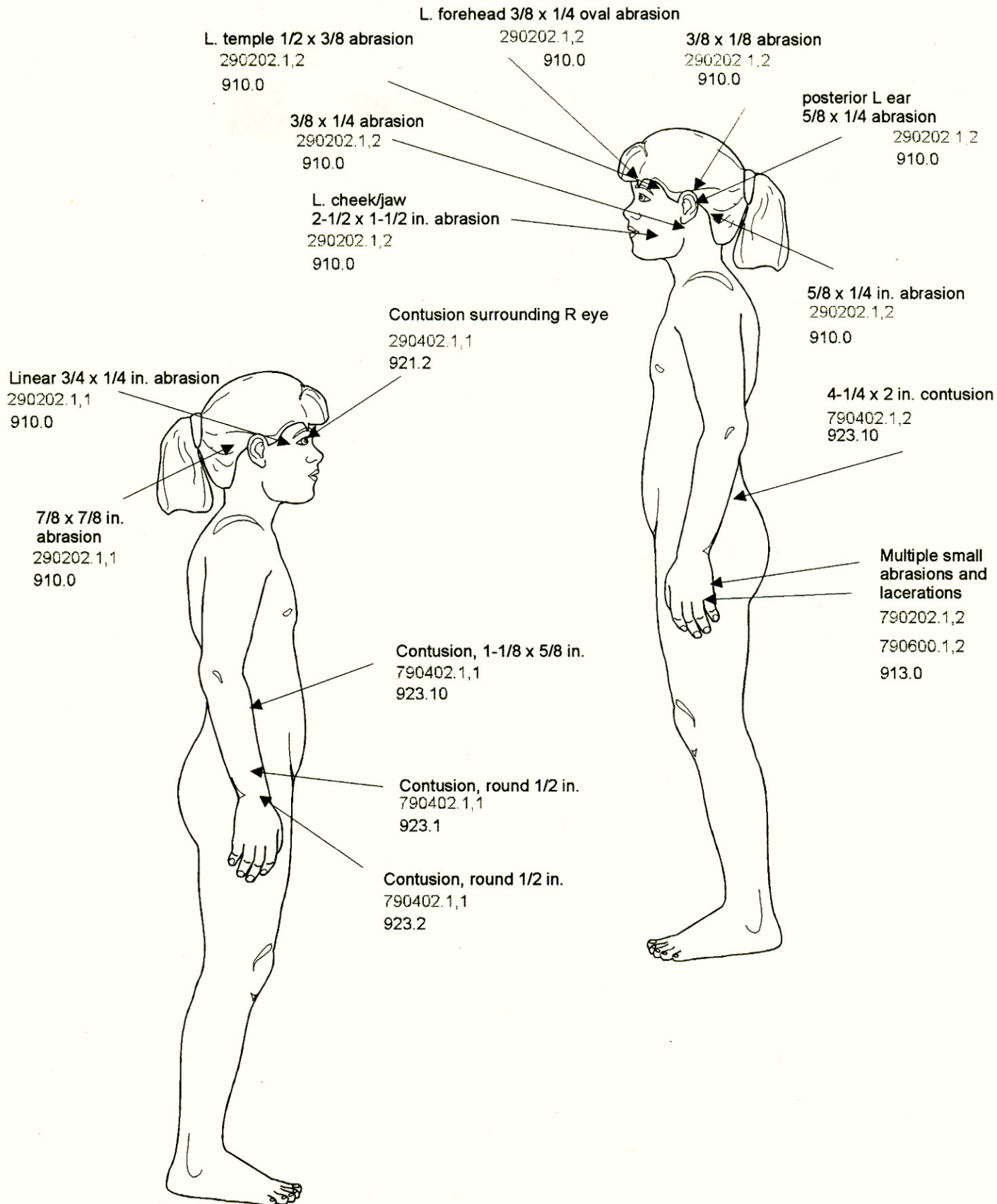
140620.3
851.01

2 x 1 cm contusion

Soft tissue hemorrhage @
atlantoaxial joint w/o
evident fracture

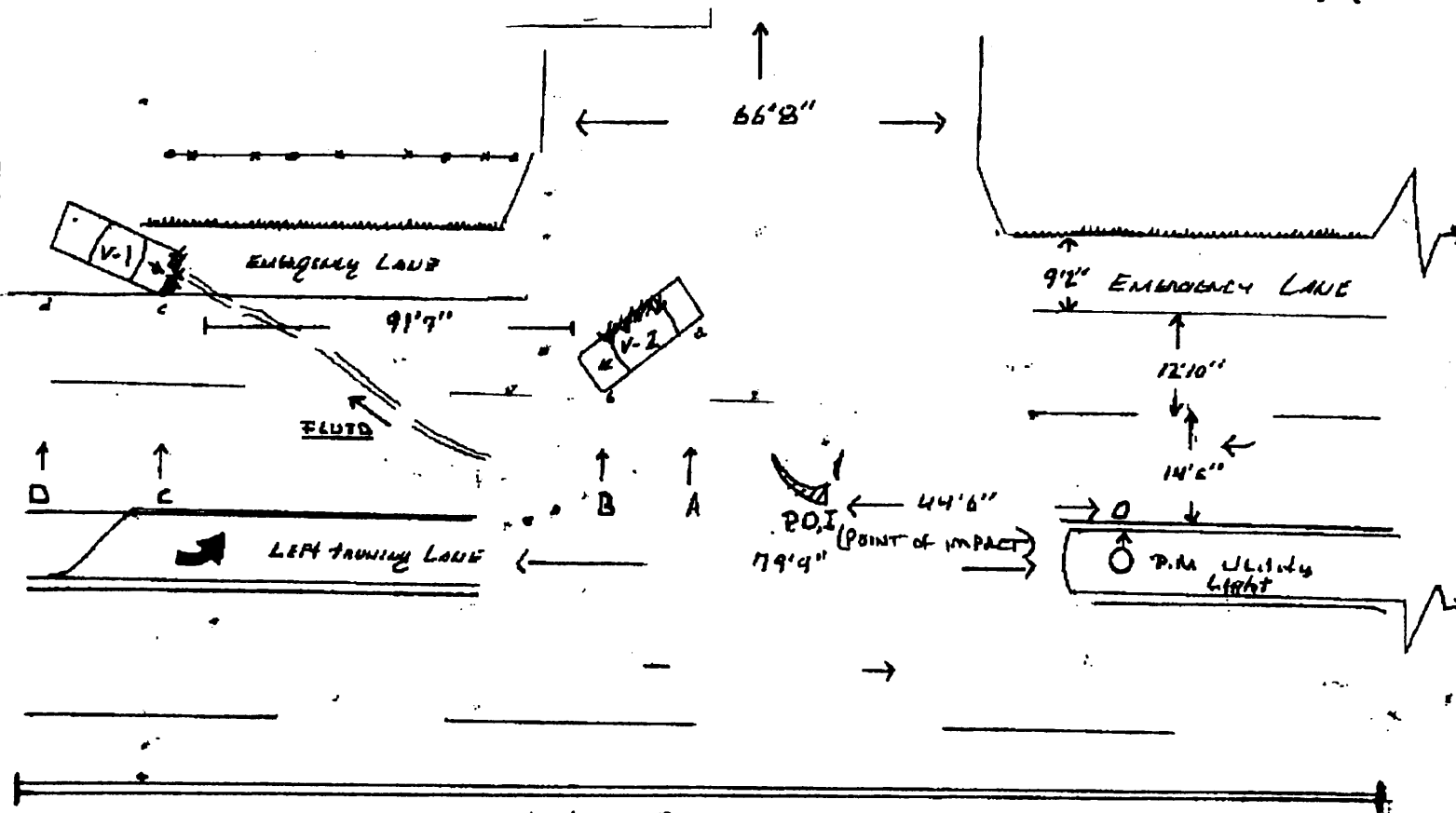


Subarachnoid hemorrhage (frontal
lobes, base of brain, and brain stem)
140684.3,9
852.0



DND

UNIFORM ACCIDENT REPORT
SUPPLEMENTAL DIAGRAM/NARRATIVE



NOT TO SCALE

LEGEND
PM-Utility

O, A, B, C, D are points in a straight line

a LEFT REAR LINE OF Vch
b LEFT FRONT TIRE OF Vch
c RIGHT FRONT TIRE OF Vch
d RIGHT REAR LINE OF Vch

(P.O.I.) GONG'S MARK
from VEHICLE LIGHT
REAR TIRE.

MEASUREMENTS

PM-O - 8'5"
O-A - 46'5"
O-B - 54'0"
O-C - 149'1"
O-D - 160'4"
A-a - 21'9"
B-b - 18'3"
C-c - 26'8"
D-d - 30'0"

OCT 1984		<input type="checkbox"/> PRIVATE PROPERTY		<input checked="" type="checkbox"/> FATAL		<input type="checkbox"/> INJURY		PROPERTY DAMAGE ONLY		<input type="checkbox"/> UNDER \$300		<input type="checkbox"/> \$300 OR MORE		<input type="checkbox"/> HIT AND RUN		UNIFORM ACCIDENT REPORT			
DATE OF ACCIDENT MO. / DAY / YR.				MILEAGE TIME				CITY OCCURRED IN				COUNTY				SHEET 1 OF 6 SHEETS			
SUN M T W T F SAT				OCCURRED ON: (MOUSE NO. 9 1984)				AT INTERSECTION WITH:											
OTHER LOCATION: Approx. 20 FEET				PERMANENT LANDMARK—COUNTY LINE INTERSECTION				FOR USE BY ORIGINATOR											
LOCATION: MILEPOST 20				N S E W OF: US															
LOCATION: MILEPOST 20				N S E W OF MILEPOST NO.															
ACCIDENT: <input checked="" type="checkbox"/> On Roadway				CLASSIFICATION: <input type="checkbox"/> Overturned				<input type="checkbox"/> Other N-Col				<input type="checkbox"/> Pedestrian							
OCCURRED: <input type="checkbox"/> Off Roadway				<input type="checkbox"/> Parked Veh				<input type="checkbox"/> R.R. Train				<input type="checkbox"/> Pedalcyclist							
				<input type="checkbox"/> Animal				<input type="checkbox"/> Fixed Object				<input type="checkbox"/> Other Object							
VEHICLE NO. 1				HEADED: N S E W ON:				Posted Speed 45				Safe Speed 45							
Driver's Full Name				Address				Zip Code				Phone							
Driver License Number				State				Type				Restrictions							
Social Security Num.				Occupation				Expires				Date of Birth							
Seal Position Code				Occupant's Name				Occupant's Address/Zip Code				Age Sex Injury							
SEAT BELT				HELMET															
SEAT BELT				HELMET															
SEAT BELT				HELMET															
VEHICLE Yr.				Vehicle Make				Color				Body Style							
1996				OLDS				WHITE				4T							
License Yr.				State				License Number				US DOT/CC/SCC Numbers VIN							
1997				NM															
Owner's Name				Owner's Address				Zip Code				Owner's Telephone							
Insured By: (Name of Company)				Policy Number				Liability Insurance				VEHICLE DAMAGE							
								<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> None <input type="checkbox"/> More							
VEHICLE NO. 2—PEDESTRIAN				HEADED: N S E W ON:				Posted Speed 45				Safe Speed 45							
Driver's or Pedestrian's Full Name				Address				Zip Code				Phone							
Driver License Number				State				Type				Restrictions							
Social Security Num.				Occupation				Expires				Date of Birth							
Seal Position Code				Occupant's Name				Occupant's Address/Zip Code				Age Sex Injury							
SEAT BELT				HELMET															
SEAT BELT				HELMET															
SEAT BELT				HELMET															
VEHICLE Yr.				Vehicle Make				Color				Body Style							
1987				FORD				BLUE				4T							
License Yr.				State				License Number				US DOT/CC/SCC Numbers VIN							
1997				NM															
Owner's Name				Owner's Address				Zip Code				Owner's Telephone							
Insured By: (Name of Company)				Policy Number				Liability Insurance				VEHICLE DAMAGE							
								<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> None <input type="checkbox"/> More							
INJURED: First Aid Rendered By:				Injured Taken To:				By:											
				HOSPITAL				AMBULANCE											
OTHER PROPERTY INVOLVED				DESCRIPTION OF PROPERTY AND DAMAGE				Owner's Name				Owner's Address/Zip Code							
				NONE															
WITNESS																			

1. COMPLETE FRONT OF FORM. 2. REMOVE CARBON AND TISSUE PAPER. 3. TURN OVER AND COMPLETE REVERSE SIDE.

ISSUING AGENCY COPY

BEST AVAILABLE

ROAD - WEATHER	<input type="checkbox"/> Dawn	<input type="checkbox"/> Raining	<input type="checkbox"/> Wet	<input type="checkbox"/> Unstriped	<input type="checkbox"/> Stop Sign	<input type="checkbox"/> Curve	<input checked="" type="checkbox"/> 2 Lanes	<input type="checkbox"/> Ramp
	<input checked="" type="checkbox"/> Dusk	<input type="checkbox"/> Snowing	<input type="checkbox"/> Snow	<input type="checkbox"/> Pavement Center Stripe	<input type="checkbox"/> Traffic Signal	<input type="checkbox"/> GRADE (Check One)	<input type="checkbox"/> 3 Lanes	<input type="checkbox"/> Freeway
<input type="checkbox"/> Dark Lighted	<input type="checkbox"/> Fog	<input type="checkbox"/> Ice	<input type="checkbox"/> Pavement Center & Edge Line	<input type="checkbox"/> Yield Sign	<input type="checkbox"/> Level	<input type="checkbox"/> 4 Lanes	<input type="checkbox"/> Undivided	<input type="checkbox"/> Underpass
<input type="checkbox"/> Dark - Not Lighted	<input type="checkbox"/> Dust	<input type="checkbox"/> Loose Material	<input type="checkbox"/> Unpaved	<input type="checkbox"/> R.R. Gate	<input type="checkbox"/> Hillcrest		<input type="checkbox"/> Physical Div.	<input type="checkbox"/> Alley
<input type="checkbox"/> Other	<input type="checkbox"/> Wind	<input type="checkbox"/> Other		<input type="checkbox"/> 4 Way Stop	<input type="checkbox"/> On Grade		<input type="checkbox"/> Painted Div.	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Other			<input checked="" type="checkbox"/> No Controls	<input type="checkbox"/> Dip			<input type="checkbox"/> Control Zone
				<input type="checkbox"/> Other				

EVENT	APPARENT CONTRIBUTING FACTORS (Check One Or More For Each)				WHAT DRIVERS WERE DOING (Check One For Each)			
	<input type="checkbox"/> Excessive speed <input type="checkbox"/> Speed too fast for conditions <input type="checkbox"/> Failed to yield right of way <input type="checkbox"/> Passed stop sign <input type="checkbox"/> Disregarded traffic signal <input type="checkbox"/> Drove left of center <input type="checkbox"/> Improper overtaking <input type="checkbox"/> Avoided no contact vehicle <input type="checkbox"/> Avoided no contact - other	<input type="checkbox"/> Following too closely <input type="checkbox"/> Made improper turn <input type="checkbox"/> Driver inattention <input type="checkbox"/> Under influence of alcohol <input type="checkbox"/> Other improper driving <input type="checkbox"/> Pedestrian error <input type="checkbox"/> Inadequate brakes <input type="checkbox"/> Driverless moving vehicle <input type="checkbox"/> Defective steering	<input type="checkbox"/> Defective tires <input type="checkbox"/> Other mechanical defective <input type="checkbox"/> Road defect <input type="checkbox"/> Other - No driver error <input type="checkbox"/> Traffic control not functioning <input type="checkbox"/> Improper lane change <input type="checkbox"/> Improper backing <input type="checkbox"/> None <input type="checkbox"/> Vehicle skidded before braking	<input checked="" type="checkbox"/> Going Straight <input type="checkbox"/> Overtaking - Passing <input type="checkbox"/> Right Turn <input checked="" type="checkbox"/> Left Turn <input type="checkbox"/> U Turn <input type="checkbox"/> Stopping <input type="checkbox"/> Backing	<input type="checkbox"/> Stopped for traffic <input type="checkbox"/> Stopped for signal <input type="checkbox"/> Start in traffic in <input type="checkbox"/> Start from park <input type="checkbox"/> Parked <input type="checkbox"/> Other			

DRIVER	DRIVER OR PEDESTRIAN SOBRIETY (Check One Or More For Each)		DRIVER OR PEDESTRIAN PHYSICAL CONDITION (Check One Or More For Each)		PEDESTRIAN	PEDESTRIAN ACTION	
	<input type="checkbox"/> HBD (Had Been Drinking) <input type="checkbox"/> Tested By Instrument <input checked="" type="checkbox"/> Had Not Been Drinking <input type="checkbox"/> Sobriety Unknown <input type="checkbox"/> Field Sobriety Test <input type="checkbox"/> Eye Gaze / Nystagmus	<input type="checkbox"/> Fatigue - Asleep <input type="checkbox"/> Eyesight Imp. <input type="checkbox"/> Hearing Imp. <input type="checkbox"/> ILL	<input type="checkbox"/> Medication <input type="checkbox"/> Amputee <input checked="" type="checkbox"/> No App. Defects <input type="checkbox"/> Other Physical Impairment	<input type="checkbox"/> At Intersection <input type="checkbox"/> With Signal <input type="checkbox"/> Against Signal <input type="checkbox"/> No Signal <input type="checkbox"/> Diagonal		<input type="checkbox"/> Not At Intersection <input type="checkbox"/> From Behind Obstruction <input type="checkbox"/> No Crosswalk <input checked="" type="checkbox"/> Crosswalk <input type="checkbox"/> Walking W/Tr <input type="checkbox"/> Other	<input type="checkbox"/> Walking Against Traffic <input type="checkbox"/> Standing <input type="checkbox"/> Pushing or Working on Vehicle <input type="checkbox"/> Playing in Road
Diagram Drawn By: _____		Measurements By: _____		Leave Blank		*Specify <u>N/A</u>	

SEE SUPPLEMENTAL DIAGRAM

Indicate North By Arrow

Use Supplemental Diagram/Narrative Sheet for additional information

NARRATIVE (Describe how accident occurred.)

SEE SUPPLEMENTAL NARRATIVE

TRAILER OR TOWED VEHICLES	TOWED BY	Year	Make	Lic Yr - State - Number	Type
	VEN. #1 <u>N/A</u>				
	TOWED BY	Year	Make	Lic Yr - State - Number	Type
	VEN. #2				

ENFORCEMENT ACTION	VEN. NO.	Name	Violation	W	B	C	Citation No.
	VEN. NO.	<u>PENDING</u>					
	VEN. NO.						

Time Reported	Time Arrived	Notified By	Supr. at Scene	Checked By
		<u>NONE</u>	<u>Lt. [redacted]</u>	<u>Sgt. [redacted]</u>

Officer's Signature	Rank	ID No.	District	Date of Report

THIS REPORT MAY CONTAIN OPINIONS AND OBSERVATIONS OF THE INVESTIGATING OFFICER

BEST AVAILABLE

SUPPLEMENTAL DIAGRAM/NARRATIVE

On this Officer was standing in front of the
when I heard a loud crash. Myself and other Officers present
got into our units and proceeded just north of the
Upon arrival, this Officer saw two cars which were involved in a
Accident. Driver and passengers of vehicle (1) were taken by
to the by personnel vehicle. Vehicle
(2) driver was pinned inside vehicle (2). After extrication of driver (2) he
he was taken to the

Accident investigation revealed that vehicle (1) was traveling south
bound on the passing lane. Vehicle (2) was in the left turning
lane awaiting traffic to clear. Vehicle (2) proceeded to make a left turn.
Vehicle (1) was unable to take evasive action and struck vehicle (2) on the
right side of vehicle. Vehicle (2) at fault.

Driver of vehicle (1) stated that as she was traveling south on
she didn't see the car pull out in front of her. Driver of
vehicle (2) was unavailable for statement, as he was admitted to the

Witness (1) states vehicle (2) tried to beat traffic by crossing
Witness (2) states that as vehicle (2) crossed onto
he was struck by vehicle (1).

Enforcement action is pending at this time as contact needs to be
made through

SUPPLEMENTAL DIAGRAM/NARRATIVE

Vehicle (1) driver complained of chest injuries. Right rear passenger complained of right leg injuries and right front passenger was pronounced deceased at 1950 hours.

Vehicle (2) driver was admitted to

for his injuries.

UNIFORM ACCIDENT REPORT
SUPPLEMENTAL DIAGRAM/NARRATIVE

ASSIGNMENT = Motor Vehicle Accident - Two Vehicles

SCENE = and

INVESTIGATION = White vehicle #1 - traveling south bound on on
inside lane.

Blue vehicle #2 - attempting to make left turn from north
bound

VEHICLE DAMAGE = Damage to White vehicle #1 - Front end windshield -
Air bag.

Damage to Blue vehicle #2 to right front door and rear
door.

EVIDENCE = Photo's by
Measurements by
Traffic Control by
On scene supervisor



ACCIDENT FORM

1. Primary Sampling Unit Number _____

2. Case Number - Stratum AB 12

IDENTIFICATION

3. Number of General Vehicle
Forms Submitted 024. Date of Accident
(Month, Day, Year) _____ / _____ / 9 65. Time of Accident 1 7 1 7

Code reported military time of accident.

NOTE: Midnight = 2400
Unknown = 9999

SPECIAL STUDIES - INDICATORS

Check (✓) each special study (SS15-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6. _____ SS15 Administrative Use 07. _____ SS16 Pedestrian Crash Data Study 0
(Data for this special study available
in a separate file.)8. _____ SS17 Impact Fires 09. _____ SS18 Unsafe Driver Actions 010. _____ SS19 _____ 0

NUMBER OF EVENTS

11. Number of Recorded Events
in This Accident 01Code the number of events which occurred
in this accident.

ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object in the right columns.

Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
12. <u>0 1</u>	13. <u>01</u>	14. <u>03</u>	15. <u>F</u>	16. <u>02</u>	17. <u>01</u>	18. <u>R</u>
19. <u>0 2</u>	20. _____	21. _____	22. _____	23. _____	24. _____	25. _____
26. <u>0 3</u>	27. _____	28. _____	29. _____	30. _____	31. _____	32. _____
33. <u>0 4</u>	34. _____	35. _____	36. _____	37. _____	38. _____	39. _____
40. <u>0 5</u>	41. _____	42. _____	43. _____	44. _____	45. _____	46. _____

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT



GENERAL VEHICLE FORM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

VEHICLE IDENTIFICATION

4. Vehicle Model Year

Code the last two digits of the model year
(99) Unknown

5. Vehicle Make (specify):

Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(99) Unknown

6. Vehicle Model (specify):

Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(999) Unknown

7. Body Type

Note: Applicable codes may be found on
the back of this page.

8. Vehicle Identification Number

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Left justify; Slash zeros and letter Z (0 and Z)
No VIN—Code all zeros
Unknown—Code all nines

9. Vehicle Special Use (This Trip)

- (0) No special use
(1) Taxi
(2) Vehicle used as school bus
(3) Vehicle used as other bus
(4) Military
(5) Police
(6) Ambulance
(7) Fire truck or car
(8) Other (specify):
(9) Unknown

OFFICIAL RECORDS

10. Police Reported Vehicle Disposition

- (0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

11. Police Reported Travel Speed

Code to the nearest kmph (NOTE: 000 means
less than 0.5 kmph)

- (160) 159.5 kmph and above
(999) Unknown

mph X 1.6093 = kmph

12. Speed Limit

- (000) No statutory limit
Code posted or statutory speed limit
in kmph:
(999) Unknown

mph X 1.6093 = kmph

13. Police Reported Alcohol Presence For Driver

- (0) No alcohol present
(1) Yes alcohol present
(7) Not reported
(8) No driver present
(9) Unknown

14. Alcohol Test Result For Driver

Code actual value (decimal implied
before first digit—0.xx)

- (95) Test refused
(96) None given
(97) AC test performed, results unknown
(98) No driver present
(99) Unknown

Source:

15. Police Reported Other Drug Presence For
Driver

- (0) No other drug(s) present
(1) Yes other drug(s) present
(7) Not reported
(8) No driver present
(9) Unknown

16. Other Drug Specimen Test Result For Driver

- (0) No specimen test given
(1) Drug(s) not found in specimen
(2) Drug(s) found in specimen, (specify):
(3) Specimen test given, results unknown or not
obtained
(8) No driver present
(9) Unknown if specimen test given

17. Driver's Zip Code

- (00001) Driver not a resident of U.S. or territories
Code actual 5-digit zip code
(99998) No driver present
(99999) Unknown

18. Driver's Race/Ethnic Origin

- (1) White (non-Hispanic)
(2) Black (non-Hispanic)
(3) White (Hispanic)
(4) Black (Hispanic)
(5) American Indian, Eskimo or Aleut
(6) Asian or Pacific Islander
(7) Other (specify):
(8) No driver present
(9) Unknown

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify):

-
- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

Utility Vehicles ($\leq 4,500$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

Van Based Light Trucks ($\leq 4,500$ kgs GVWR)

- (20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ($\leq 4,500$ kgs GVWR)
- (23) Van based motorhome ($\leq 4,500$ kgs GVWR)
- (24) Van based school bus ($\leq 4,500$ kgs GVWR)
- (25) Van based other bus ($\leq 4,500$ kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify):

-
- (29) Unknown van type

Light Conventional Trucks (Pickup style cab, $\leq 4,500$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

Other Light Trucks ($\leq 4,500$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
 - (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify):
-
- (59) Unknown bus type

Medium/Heavy Trucks ($> 4,500$ kgs GVWR)

- (60) Step van ($> 4,500$ kgs GVWR)
- (61) Single unit straight truck ($4,500$ kgs $<$ GVWR $\leq 8,850$ kgs)
- (62) Single unit straight truck ($8,850$ kgs $<$ GVWR $\leq 12,000$ kgs)
- (63) Single unit straight truck ($> 12,000$ kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
 - (81) Moped (motorized bicycle)
 - (82) Three-wheel motorcycle or moped
 - (88) Other motored cycle (minibike, motorscooter) (specify):
-
- (89) Unknown motored cycle type

Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

PRECRASH ENVIRONMENTAL DATA

19. Relation To Interchange Or Junction 2

- (0) Non-interchange area and non-junction
 (1) Interchange area related

Non-Interchange junctions

- (2) Intersection related
 (3) Driveway, alley access related
 (4) Other junction (specify) _____

(5) Unknown type of junction _____

(9) Unknown

20. Trafficway Flow 1

- (0) Not physically divided (two way traffic)
 (1) Divided trafficway-median strip without positive barrier
 (2) Divided trafficway-median strip with positive barrier
 (3) One way traffic
 (9) Unknown

21. Number Of Travel Lanes 2

- (1) One
 (2) Two
 (3) Three
 (4) Four
 (5) Five
 (6) Six
 (7) Seven or more
 (9) Unknown

22. Roadway Alignment 3

- (1) Straight
 (2) Curve right
 (3) Curve left
 (9) Unknown

23. Roadway Profile 1

- (1) Level
 (2) Uphill grade (>2%)
 (3) Hill crest
 (4) Downhill grade (>2%)
 (5) Sag
 (9) Unknown

24. Roadway Surface Type 2

- (1) Concrete
 (2) Bituminous (asphalt)
 (3) Brick or block
 (4) Slag, gravel, or stone
 (5) Dirt
 (8) Other (specify): _____
 (9) Unknown

25. Roadway Surface Condition 1

- (1) Dry
 (2) Wet
 (3) Snow or slush
 (4) Ice
 (5) Sand, dirt, or oil
 (8) Other (specify): _____
 (9) Unknown

26. Light Conditions 5

- (1) Daylight
 (2) Dark
 (3) Dark, but lighted
 (4) Dawn
 (5) Dusk
 (9) Unknown

27. Atmospheric Conditions φ

- (0) No adverse atmospheric-related driving conditions
 (1) Rain
 (2) Sleet/hail
 (3) Snow
 (4) Fog
 (5) Rain and fog
 (6) Sleet and fog
 (7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): _____
 (9) Unknown

28. Traffic Control Device φ

- (0) No traffic control(s)
 (1) Traffic control signal (not RR crossing)

Regulatory

- (2) Stop sign
 (3) Yield sign
 (4) School zone sign
 (5) Other regulatory sign (specify): _____

(6) Warning sign (not RR crossing)

(7) Unknown sign

(8) Miscellaneous/other controls including RR controls (specify): _____

(9) Unknown

29. Traffic Control Device Functioning φ

- (0) No traffic control device
 (1) Traffic control device not functioning (specify) _____

(2) Traffic control device functioning properly

(9) Unknown

PRECRASH DRIVER RELATED DATA

30. Driver's Distraction/Inattention To Driving 41
 (Prior To Recognition Of Critical Event)
 (00) No driver present
 (01) Attentive or not distracted
 (02) Looked but did not see
Distractions
 (03) By other occupant(s), (specify): _____
 (04) By moving object in vehicle (specify): _____
 (05) While talking or listening to cellular phone (specify location and type of phone): _____
 (06) While dialing cellular phone (specify location and type of phone): _____
 (07) While adjusting climate controls
 (08) While adjusting radio, cassette, CD (specify): _____
 (09) While using other device/object in vehicle (specify): _____
 (10) Sleepy or fell asleep
 (11) Distracted by outside person, object, or event (specify): _____
 (12) Eating or drinking
 (13) Smoking related
 (97) Distracted/inattentive, details unknown
 (98) Other, distraction (specify): _____
 (99) Unknown _____

31. Pre-Event Movement (Prior to Recognition of Critical Event) 14
 (00) No driver present
 (01) Going straight
 (02) Decelerating in traffic lane
 (03) Accelerating in traffic lane
 (04) Starting in traffic lane
 (05) Stopped in traffic lane
 (06) Passing or overtaking another vehicle
 (07) Disabled or parked in travel lane
 (08) Leaving a parking position
 (09) Entering a parking position
 (10) Turning right
 (11) Turning left
 (12) Making a U-turn
 (13) Backing up (other than for parking position)
 (14) Negotiating a curve
 (15) Changing lanes
 (16) Merging
 (17) Successful avoidance maneuver to a previous critical event
 (97) Other (specify): _____
 (99) Unknown _____

32. Critical Precrash Event 62
This Vehicle Loss of Control Due To:
 (01) Blow out or flat tire
 (02) Stalled engine
 (03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
 (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
 (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
 (06) Traveling too fast for conditions
 (08) Other cause of control loss (specify): _____
 (09) Unknown cause of control loss _____

This Vehicle Traveling

- (10) Over the lane line on left side of travel lane
 (11) Over the lane line on right side of travel lane
 (12) Off the edge of the road on the left side
 (13) Off the edge of the road on the right side
 (14) End departure
 (15) Turning left at intersection
 (16) Turning right at intersection
 (17) Crossing over (passing through) intersection
 (18) This vehicle decelerating
 (19) Unknown travel direction

Other Motor Vehicle In Lane

- (50) Other vehicle stopped
 (51) Traveling in same direction with lower steady speed
 (52) Traveling in same direction while decelerating
 (53) Traveling in same direction with higher speed
 (54) Traveling in opposite direction
 (55) In crossover
 (56) Backing
 (59) Unknown travel direction of other motor vehicle in lane

Other Motor Vehicle Encroaching Into Lane

- (60) From adjacent lane (same direction)—over left lane line
 (61) From adjacent lane (same direction)—over right lane line
 (62) From opposite direction—over left lane line
 (63) From opposite direction—over right lane line
 (64) From parking lane
 (65) From crossing street, turning into same direction
 (66) From crossing street, across path
 (67) From crossing street, turning into opposite direction
 (68) From crossing street, intended path not known
 (70) From driveway, turning into same direction
 (71) From driveway, across path
 (72) From driveway, turning into opposite direction
 (73) From driveway, intended path not known
 (74) From entrance to limited access highway
 (78) Encroachment by other vehicle—details unknown

Pedestrian, Pedalcyclist, or Other Nonmotorist

- (80) Pedestrian in roadway
 (81) Pedestrian approaching roadway
 (82) Pedestrian—unknown location
 (83) Pedalcyclist or other nonmotorist in roadway (specify): _____
 (84) Pedalcyclist or other nonmotorist approaching roadway, (specify): _____
 (85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

Object or Animal

- (87) Animal in roadway
 (88) Animal approaching roadway
 (89) Animal—unknown location
 (90) Object in roadway
 (91) Object approaching roadway
 (92) Object—unknown location
 (98) Other critical precrash event (specify): _____
 (99) Unknown _____

33. Attempted Avoidance Maneuver 02

- (00) No driver present
- (01) No avoidance maneuver
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (98) Other action (specify):

(99) Unknown

34. Pre-Impact Stability 1

- (0) No driver present
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify):

(9) Precrash stability unknown

35. Pre-Impact Location 1

- (0) No driver present
- (1) Stayed in original travel lane
- (2) Stayed on roadway but left original travel lane
- (3) Stayed on roadway, not known if left original travel lane
- (4) Departed roadway
- (5) Remained off roadway
- (6) Returned to roadway
- (7) Entered roadway
- (9) Unknown

36. Accident Type 69

(Note: Applicable codes on back of this page)

- (00) No impact
Code the number of the diagram that best describes the accident circumstance
- (98) Other accident type (specify):

(99) Unknown

STOP HERE IF GV07 DOES NOT EQUAL 01 - 49

CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

- (00) No rollover
- (01-30) — Vehicle Number

Noncollision

- (31) Turn-over — fall-over
- (32) No rollover impact initiation (end-over-end)
- (34) Jackknife

Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment

- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail)
(specify): _____

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): _____

- (69) Unknown fixed object _____

Collision with Nonfixed Object

- (70) Passenger car, light truck, van, or other vehicle not in-transport
- (71) Medium/heavy truck or bus not in-transport
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): _____

- (89) Unknown nonfixed object _____

- (98) Other event (specify): _____

- (99) Unknown event or object _____

OCCUPANT RELATED

37. Driver Presence in Vehicle 1
 (0) Driver not present
 (1) Driver present
 (9) Unknown
38. Number of Occupants This Vehicle 0 3
 (00-96) Code actual number of occupants for this vehicle
 (97) 97 or more
 (99) Unknown
39. Number of Occupant Forms Submitted 0 3

AIR BAG RELATED

40. Is this an AOPS Vehicle? 1
 (0) No (includes unknown)
 (1) Yes - researcher determined
 (2) VIN determined air bag system
 (3) VIN determined automatic (passive) belts
 (4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal 6
 (0) Not equipped or not available
 (1) No air bags deployed
Single Air Bag Vehicle
 (2) Driver air bag deployed
 (3) Driver air bag, unknown if deployed
Multiple Air Bag Vehicle
 (4) Driver side only deployed
 (5) Passenger side only deployed
 (6) Driver and passenger side deployed
 (7) Driver and passenger side unknown if deployed
 (8) Air bag(s) deployed, details unknown
 (9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal 0
 (0) Not equipped with an "other" air bag
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

Specify type of "other" air bag present: _____

VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight 1 5 4 0
 Code weight to nearest 10 kilograms.
 (045) Less than 450 kilograms
 (610) 6,100 kilograms or more
 (999) Unknown
3 4 0 3 lbs X .4536 = 1 5 4 4 kgs

Source: _____

44. Vehicle Cargo Weight 0 0 0 0
 Code weight to nearest 10 kilograms.
 (000) Less than 5 kilograms
 (450) 4,500 kilograms or more
 (999) Unknown

_____ lbs X .4536 = _____ kgs

Source: FEA INSPECTION

ROLLOVER DATA

45. Rollover 0 0
 (00) No rollover (no overturning)
Rollover (primarily about the longitudinal axis)
 (01-16) Code the number of quarter turns
 (17) Rollover, 17 or more quarter turns (specify):
 (98) Rollover—end-over-end (i.e., primarily about the lateral axis)
 (99) Rollover (overturn), details unknown

46. Rollover Initiation Type 0 0
 (00) No rollover
 (01) Trip-over
 (02) Flip-over
 (03) Turn-over
 (04) Climb-over
 (05) Fall-over
 (06) Bounce-over
 (07) Collision with another vehicle
 (08) Other rollover initiation type specify):
 (98) Rollover—end-over-end
 (99) Unknown rollover initiation type

47. Location of Rollover Initiation 0
 (0) No rollover
 (1) On roadway
 (2) On shoulder—paved
 (3) On shoulder—unpaved
 (4) On roadside or divided trafficway median
 (8) Rollover—end-over-end
 (9) Unknown

48. Rollover Initiation Object Contacted 0 0
 (Note: Applicable codes on back of page)

49. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0
 (0) No rollover
 (1) Wheels/tires
 (2) Side plane
 (3) End plane
 (4) Undercarriage
 (5) Other location on vehicle (specify):
 (6) Non-contact rollover forces (specify):
 (8) Rollover—end-over-end
 (9) Unknown

50. Direction of Initial Roll 0
 (0) No rollover
 (1) Roll right - primarily about the longitudinal axis
 (2) Roll left - primarily about the longitudinal axis
 (8) Rollover—end-over-end
 (9) Unknown roll direction

VERRIDE/UNDERRIDE (THIS VEHICLE)

51. Front Override/Underride (this Vehicle) Φ
52. Rear Override/Underride (this Vehicle) Φ
- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride

Override (see specific CDC)

[Between 2 CDS applicable vehicles (Bodytype, GV07=1-49)]

- (1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify):

Underride (see specific CDC)

[Between 2 CDS applicable vehicles (Bodytype, GV07=1-49)]

- (4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify):

- (7) Medium/heavy truck or bus override (of any configuration)
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

53. Heading Angle For This Vehicle 18Φ
54. Heading Angle For Other Vehicle 29Φ

RECONSTRUCTION DATA

55. Towed Trailing Unit Φ
- (0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown
56. Documentation of Trajectory Data for This Vehicle 1
- (0) No
(1) Yes
57. Post Collision Condition of Tree or Pole (For Highest Delta V) Φ
- (0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify):

(9) Unknown

ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V

58. Basis for Total (Resultant) Delta V (highest) Φ3

(00) No vehicle inspection

Delta V Calculated

- (01) Reconstruction program—damage only routine
(02) Reconstruction program—damage and trajectory routine
(03) Missing vehicle algorithm

Delta V Not Calculated

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.

- (05) Rollover
(06) Other non-horizontal forces
(07) Sideswipe type damage
(08) Severe override
(09) Yielding object
(10) Overlapping damage
(11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

(98) Other, (specify):

COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V

0 2 223

Nearest kmph (highest)

Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

60. Longitudinal Component of
Delta V

Highest

+ 0 2 2-22

Nearest kmph (highest)

Nearest kmph (secondary)

(NOTE: 000 means greater than

-0.5 kmph and less than +0.5 kmph)

(±160) ±159.5 kmph and above

(999) Unknown

61. Lateral Component of Delta V

Highest

+ 0 0 2

Nearest kmph (highest)

Nearest kmph (secondary)

(NOTE: 000 means greater than -0.5 kmph and
less than +0.5 kmph)

(±160) ±159.5 kmph and above

(999) Unknown

62. Energy Absorption

0 3 6 8 0 036848

Nearest 100 joules (highest)

Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)

(9997) 999,650 joules or more

(9999) Unknown

63. Impact Speed

Highest

9 9 8

Nearest kmph (highest)

Nearest kmph (secondary)

(NOTE: 000 means

less than 0.5 kmph)

(160) 159.5 kmph and above

(998) Trajectory algorithm not run

(999) Unknown

DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program
Results (For Highest Delta V)1

(0) No reconstruction

(1) Collision fits model — results appear
reasonable

(2) Collision fits model — results appear high

(3) Collision fits model — results appear low

(4) Borderline reconstruction — results appear
reasonable

OTHER SPEED ESTIMATE

65. Barrier Equivalent
Speed

Highest

0 2 3229 Nearest kmph (highest)

Nearest kmph (secondary)

(NOTE: 000 means

less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

IS MISSING VEHICLE ALGORITHM APPLICABLE FOR THIS VEHICLE? [☒] YES [] NOIF YES: IS A COMPLETED PROGRAM SUMMARY INCLUDED? [☒] YES [] NO

ESTIMATED DELTA V	VEHICLE INSPECTION
<p>66. Estimated Highest Delta V (Researcher Determined) <u>φ</u></p> <p>(0) Reconstruction Delta V coded</p> <p><i>Estimated Delta V</i></p> <p>(1) Less than 10 kmph</p> <p>(2) ≥ 10 kmph but < 25 kmph</p> <p>(3) ≥ 25 kmph but < 40 kmph</p> <p>(4) ≥ 40 kmph but < 55 kmph</p> <p>(5) ≥ 55 kmph</p> <p><i>Other estimates of damage severity</i></p> <p>(6) Minor</p> <p>(7) Moderate</p> <p>(8) Severe</p> <p>(9) Unknown</p>	<p>67. Type of Vehicle Inspection <u>3</u></p> <p>(0) No inspection</p> <p>(1) Vehicle fully repaired-no damage evident</p> <p>(2) Partial inspection (specify): _____</p> <p>(3) Complete inspection</p>

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67=0), ***

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

EXTERIOR VEHICLE FORM

1. Primary Sampling Unit Number _____
 2. Case Number - Stratum A B 1 2
 3. Vehicle Number 0 1

VEHICLE IDENTIFICATION

VIN 1G3WH5ZM4TFXXXXXX Model Year 96
Vehicle Make (specify): OLDSMOBILE Vehicle Model (specify): CUTLASS SUPREME SL 4DR

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
1	@ RF BUMPER CORNER →		C4 - C5

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush. *HONEYCOMB* *2017*

Use as many lines/columns as necessary to describe each damage profile.

[illegible]

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE

a. Rotation physically restricted b. Tire deflated

RF	<u>2</u>	RF	<u>2</u>
LF	<u>2</u>	LF	<u>2</u>
RR	<u>2</u>	RR	<u>2</u>
LR	<u>2</u>	LR	<u>2</u>

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION

☐ Manual ☒ Automatic
END SHIFT \geq 10 CM
☐ Yes ☐ No

ORIGINAL SPECIFICATIONS

MVMA

Wheelbase	<u>273</u>	cm
Overall Length	<u>492.3</u>	cm
Maximum Width	<u>182.7</u>	cm
Curb Weight	<u>1544</u>	kg
Average Track	<u>149</u> 147	cm
Front Overhang	<u>111</u>	cm
Rear Overhang	<u>108.3</u>	cm
Undeformed End Width	<u>140</u>	cm
Engine Size: cyl./displ.	<u>3.1 L V6</u>	L

WHEEL STEER ANGLES
(For locked front wheels or displaced rear axles only)

RF	\pm	<u> </u>	°
LF	\pm	<u> </u>	°
RR	\pm	<u> </u>	°
LR	\pm	<u> </u>	°

Within \pm 5 degrees

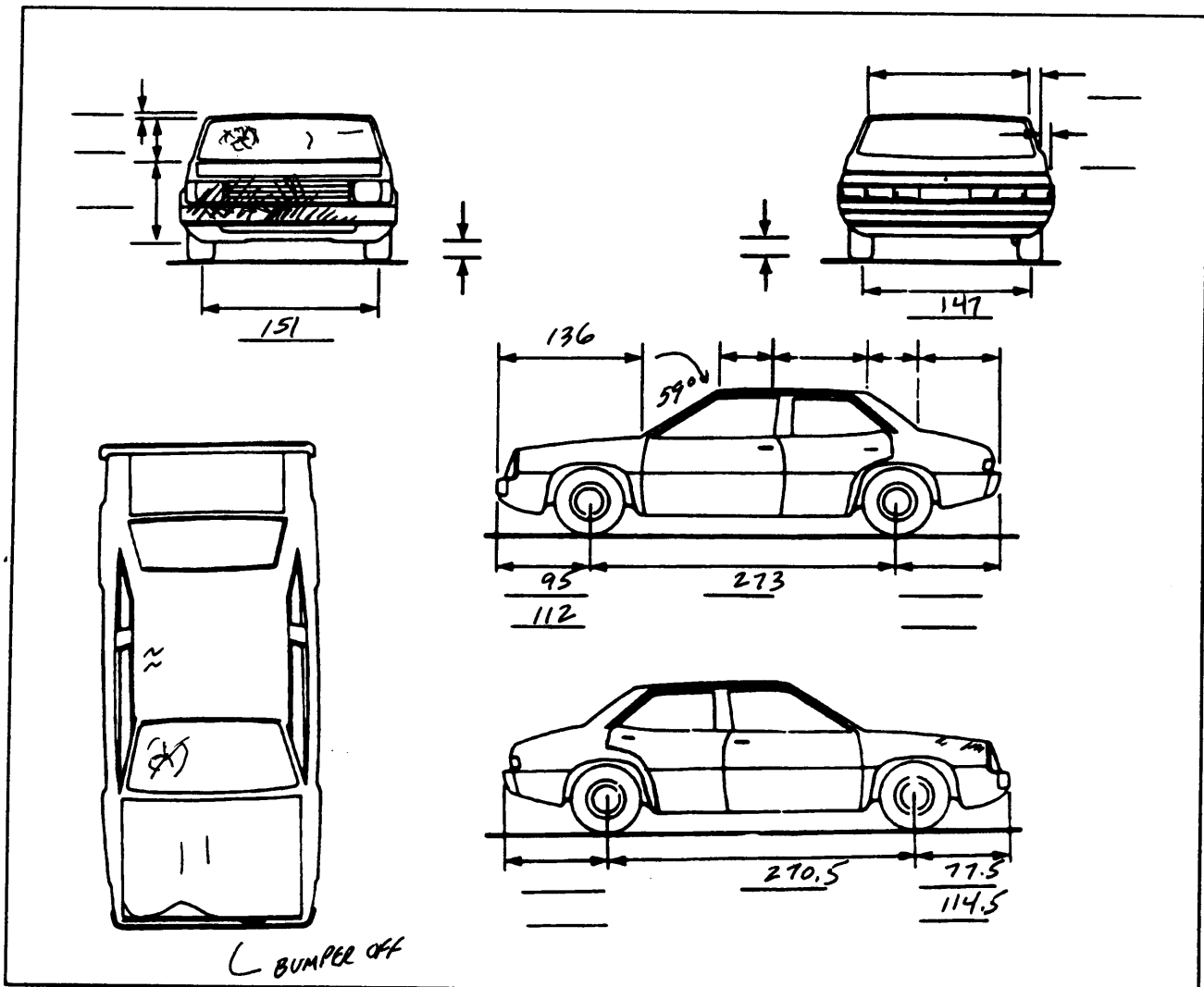
DRIVE WHEELS

☒ FWD ☐ RWD ☐ 4WD

 Approximate Cargo Weight kg

MEASUREMENTS IN CENTIMETERS

ANTILOCK BRAKES



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CODES FOR OBJECT CONTACTED

[illegible]

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>φ 1</u>	5. <u>φ 2</u>	6. <u>1 2</u>	7. <u>F</u>	8. <u>D</u>	9. <u>E</u>	10. <u>W</u>	11. <u>φ 2</u>

Second Highest Delta "V"

12. _____	13. _____	14. _____	15. _____	16. _____	17. _____	18. _____	19. _____
-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. <u>L</u>	21. <u>C₁</u>	<u>C₂</u>	<u>C₃</u>	<u>C₄</u>	<u>C₅</u>	<u>C₆</u>	22. <u>±D</u>
<u>1 4 φ</u>	<u>φ φ 2</u>	<u>φ φ 9</u>	<u>φ 2 φ</u>	<u>φ 3 φ</u>	<u>φ 3 φ</u>	<u>φ 1 9</u>	<u>④ φ 1 3</u>

Second Highest Delta "V"

23. <u>L</u>	24. <u>C₁</u>	<u>C₂</u>	<u>C₃</u>	<u>C₄</u>	<u>C₅</u>	<u>C₆</u>	25. <u>±D</u>
_____	_____	_____	_____	_____	_____	_____	_____

26. Undeformed End Width

(Coded when highest severity impact is an end plane impact.)

_____ Code to the nearest centimeter

(250) 250 centimeters or more

(998) No highest severity end plane impact

(999) Unknown

1 4 φ

27. Direct Damage Width

(For highest severity impact)

_____ Code to the nearest centimeter

(250) 250 centimeters or more

(999) Unknown

1 1 4

28. Original Wheelbase

_____ Code to the nearest centimeter

(650) 650 centimeters or more

(999) Unknown

_____ inches X 2.54 = _____ centimeters

2 7 3

29. Original Average Track Width

_____ Code to the nearest centimeter

(185) 185 centimeters or more

(999) Unknown

_____ inches X 2.54 = _____ centimeters

1 4 9

FUEL SYSTEM

30. Are CDCs Documented φbut Not Coded on The
Automated File?

- (0) No
-
- (1) Yes

31. Researcher's Assessment of Vehicle 1

Disposition

- (0) Not towed due to vehicle damage
-
- (1) Towed due to vehicle damage
-
- (9) Unknown

32. Is This A Multi-Stage Manufactured Vehicle φ

And/Or A Certified Altered Vehicle?

- (0) No post manufacturer modifications
-
- (1) Yes - post manufacturer modifications
-
- (specify): _____
-
- _____

(Include photograph of CERTIFICATION
PLACARD in case report)

- (9) Unknown if vehicle is modified

FIRE OCCURRENCE

33. Fire Occurrence φ

- (0) No fire

Yes, fire occurred

- (1) Minor
-
- (2) Major
-
- (9) Unknown

34. Origin of Fire φ

- (0) No fire
-
- (1) Vehicle exterior (front, side, back, top)
-
- (2) Exhaust system
-
- (3) Fuel tank (and other fuel retention
-
- system parts)
-
- (4) Engine compartment
-
- (5) Cargo/trunk compartment
-
- (6) Instrument panel
-
- (7) Passenger compartment area
-
- (8) Other location (specify): _____
-
- _____

- (9) Unknown

35. Location of Fuel Tank-1 Filler Cap 236. Location of Fuel Tank-2 Filler Cap φ

- (0) No fuel tank
-
- (1) On back plane
-
- (2) Aft of center of the rear wheels (rear axle) on
-
- left side plane
-
- (3) Aft of center of the rear wheels (rear axle) on
-
- right side plane
-
- (4) Forward of center of the rear wheels (rear axle)
-
- on left side plane
-
- (5) Forward of center of the rear wheels (rear axle)
-
- on right side plane
-
- (6) Over the center of the rear wheels (rear axle)
-
- on left side plane
-
- (7) Over the center of the rear wheels (rear axle)
-
- on right side plane
-
- (8) Other (specify): _____
-
- (9) Unknown

37. Type of Fuel Tank-1 138. Type of Fuel Tank-2 φ

- (0) No fuel tank (electrical vehicle)
-
- (1) Metallic
-
- (2) Non-metallic
-
- (9) Unknown

39. Location of Fuel Tank-1 440. Location of Fuel Tank-2 φ

- (0) No fuel tank
-
- (1) Aft of center of the rear wheels (rear axle)
-
- centered
-
- (2) Aft of center of the rear wheels (rear axle) left
-
- side
-
- (3) Aft of center of the rear wheels (rear axle) right
-
- side
-
- (4) Forward of center of the rear wheels (rear axle)
-
- centered
-
- (5) Forward of center of the rear wheels (rear axle)
-
- left side
-
- (6) Forward of center of the rear wheels (rear axle)
-
- right side
-
- (7) Over center of the rear wheels (rear axle)
-
- (8) Other (specify): _____
-
- (9) Unknown

41. Damage to Fuel Tank-1 142. Damage to Fuel Tank-2 φ

- (0) No fuel tank
-
- (1) No damage to fuel tank
-
- (2) Deformed, no seam failure
-
- (3) Deformed, with a seam failure
-
- (4) Punctured
-
- (5) Lacerated (ripped)
-
- (6) Abraded (scraped)
-
- (7) Filler neck separation from the fuel tank
-
- (8) Other damage (specify): _____
-
- (9) Unknown

<p>43. Leakage Location of Fuel System-1 <u>1</u></p> <p>44. Leakage Location of Fuel System-2 <u>Φ</u></p> <p style="margin-left: 20px;">(0) No fuel tank</p> <p style="margin-left: 20px;">(1) No fuel leakage</p> <p style="margin-left: 20px;"><i>Primary Area Of Leakage</i></p> <p style="margin-left: 20px;">(2) Tank</p> <p style="margin-left: 20px;">(3) Filler neck</p> <p style="margin-left: 20px;">(4) Cap</p> <p style="margin-left: 20px;">(5) Lines/pump/filter</p> <p style="margin-left: 20px;">(6) Vent/emission recovery</p> <p style="margin-left: 20px;">(8) Other (specify): _____</p> <p style="margin-left: 20px;">(9) Unknown</p> <p>45. Fuel Type-1 <u>Φ 1</u></p> <p>46. Fuel Type-2 <u>Φ Φ</u></p> <p style="margin-left: 20px;"><i>Single Fuel Type</i></p> <p style="margin-left: 20px;">(00) No fuel tank</p> <p style="margin-left: 20px;">(01) Gasoline</p> <p style="margin-left: 20px;">(02) Diesel</p> <p style="margin-left: 20px;">(03) CNG (Compressed Natural Gas)</p> <p style="margin-left: 20px;">(04) LPG (Liquid Petroleum Gas) also known as Propane</p> <p style="margin-left: 20px;">(05) LNG (Liquid Natural Gas)</p> <p style="margin-left: 20px;">(06) Methanol (M100 or M85)</p> <p style="margin-left: 20px;">(07) Ethanol (E100 or E85)</p> <p style="margin-left: 20px;">(08) Other (Hydrogen or others) (specify): _____</p> <p style="margin-left: 20px;"><i>Electric Powered or Electric/Solar Powered Vehicles</i></p> <p style="margin-left: 20px;">(10) Lead Acid Battery</p> <p style="margin-left: 20px;">(11) Nickel-Iron Battery</p> <p style="margin-left: 20px;">(12) Nickel-Cadmium Battery</p> <p style="margin-left: 20px;">(13) Sodium Metal Chloride Battery</p> <p style="margin-left: 20px;">(14) Sodium Sulfur Battery</p> <p style="margin-left: 20px;">(18) Other (Specify): _____</p> <p style="margin-left: 20px;">(98) Other Hybrid (specify): _____</p> <p style="margin-left: 20px;">(99) Unknown fuel type</p>	<p>47. Is This Vehicle Equipped With More Than Two Fuel Tanks? <u>Φ</u></p> <p style="margin-left: 20px;">(0) No (one or two tanks only)</p> <p style="margin-left: 20px;"><i>Yes - More Than Two Tanks</i></p> <p style="margin-left: 20px;">(1) Yes – <u>no damage</u> to any tank or filler cap and <u>no fuel system leakage</u></p> <p style="margin-left: 20px;">(2) Yes – <u>no damage</u> to any tank or filler cap but <u>there is fuel system leakage</u> (specify leakage location): _____</p> <p style="margin-left: 20px;">(3) Yes – <u>damage</u> to an additional tank or filler cap and <u>there is fuel system leakage</u> (specify the following): Type of tank _____ Tank location _____ Filler cap location _____ Tank damage _____ Location of leakage _____ Type of fuel _____</p> <p style="margin-left: 20px;">(9) Unknown if more than two tanks</p> <div style="text-align: center; border: 1px solid black; padding: 5px; margin-top: 10px;"> COMMENTS </div> <div style="border: 1px solid black; height: 150px; margin-top: 5px;"></div>
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*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED ***

(GV10=0)

DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



INTERIOR VEHICLE FORM

1. Primary Sampling Unit Number _____

2. Case Number - Stratum A B 1 2

3. Vehicle Number Φ 1

INTEGRITY

4. Passenger Compartment Integrity Φ Φ

(00) No integrity loss

Yes, Integrity Was Lost Through

(01) Windshield

(02) Door (side)

(03) Door/hatch (back door)

(04) Roof

(05) Roof glass

(06) Side window

(07) Rear window (backlight)

(08) Roof and roof glass

(09) Windshield and door (side)

(10) Windshield and roof

(11) Side and rear window (side window and backlight)

(12) Windshield and side window

(13) Door and side window

(98) Other combination of above (specify): _____

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF / 6. RF / 7. LR / 8. RR / 9. TG/H Φ

(0) No door/gate/hatch

(1) Door/gate/hatch remained closed and operational

(2) Door/gate/hatch came open during collision

(3) Door/gate/hatch jammed shut

(8) Other (specify): _____

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code Ø

10. LF Φ 11. RF Φ 12. LR Φ 13. RR Φ 14. TG/H Φ

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

(1) Door operational (no damage)

(2) Latch/striker failure due to damage

(3) Hinge failure due to damage

(4) Door structure failure due to damage

(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage

(6) Latch/striker and hinge failure due to damage

(8) Other failure (specify): _____

(9) Unknown

GLAZING

Type of Window/Windshield Glazing

15. WS / 16. LF 4 17. RF 4 18. LR 4 19. RR 4

20. BL 4 21. Roof Φ 22. Other 4

(0) No glazing

(1) AS-1 — Laminated

(2) AS-2 — Tempered

(3) AS-3 — Tempered-tinted (original)

(4) AS-2 — Tempered-with after market tint

(5) AS-3 — Tempered-tinted (with additional after market tint)

(6) AS-14 — Glass/Plastic

(7) Glazing removed prior to accident

(8) Other (specify): _____

(9) Unknown

Window Precrash Glazing Status

23. WS / 24. LF 2 25. RF 2 26. LR 2 27. RR 2

28. BL / 29. Roof Φ 30. Other /

(0) No glazing

(1) Fixed

(2) Closed

(3) Partially opened

(4) Fully opened

(7) Glazing removed prior to accident

(9) Unknown

Glazing Damage from Impact Forces

31. WS 2 32. LF / 33. RF / 34. LR / 35. RR /

36. BL / 37. Roof Φ 38. Other /

(0) No glazing

(1) No glazing damage from impact forces

(2) Glazing in place and cracked from impact forces

(3) Glazing in place and holed from impact forces

(4) Glazing out-of-place (cracked or not) and not holed from impact forces

(5) Glazing out-of-place and holed from impact forces

(6) Glazing disintegrated from impact forces

(7) Glazing removed prior to accident

(9) Unknown if damaged

Glazing Damage from Occupant Contact

39. WS 3 40. LF / 41. RF / 42. LR / 43. RR /

44. BL / 45. Roof Φ 46. Other /

(0) No glazing

(1) No occupant contact to glazing

(2) Glazing contacted by occupant but no glazing damage

(3) Glazing in place and cracked by occupant contact

(4) Glazing in place and holed by occupant contact

(5) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact

(6) Glazing out-of-place by occupant contact and holed by occupant contact

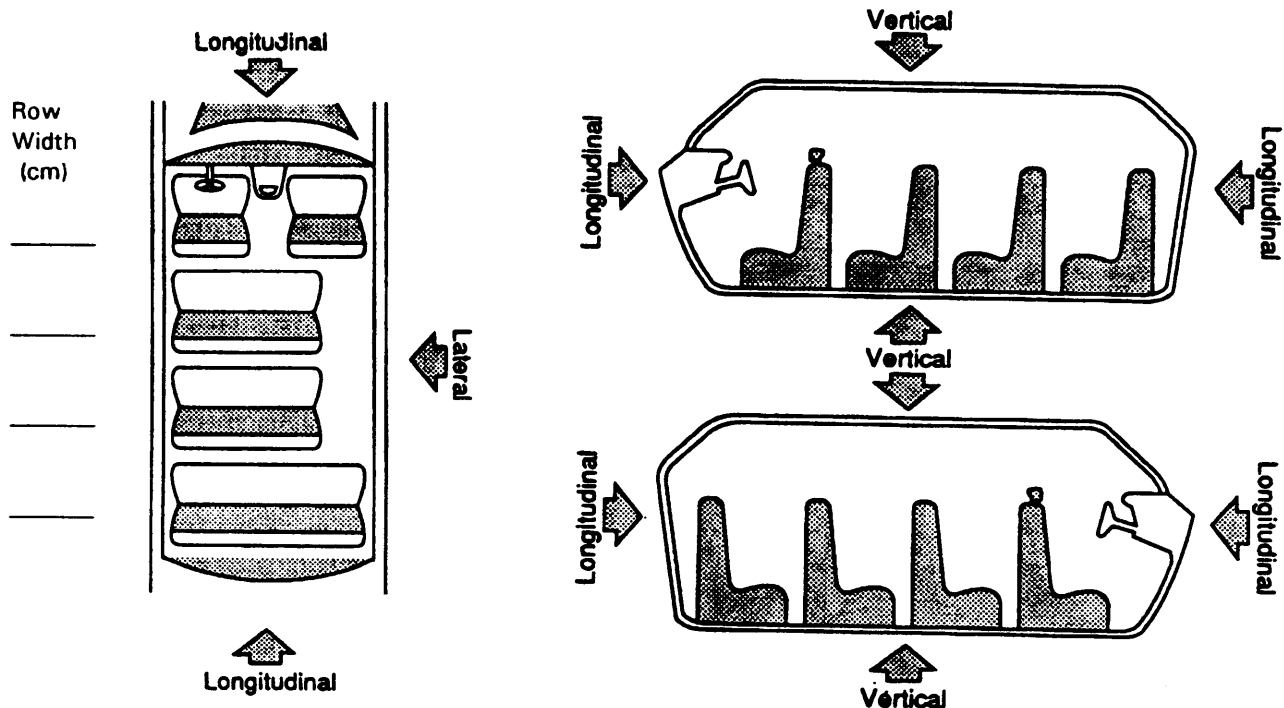
(7) Glazing removed prior to accident

(8) Glazing disintegrated by occupant contact

(9) Unknown if contacted by occupant

INTRUSION WORKSHEET

NOTE: SKETCH INTRUDED AREAS



LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are In Centimeters)			DOMINANT CRUSH DIRECTION
		COMPARISON VALUE	INTRUDED VALUE	=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	
		—		=	

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

INTRUDING COMPONENT

Interior Components

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Side panel - forward of the A1/A2-pillar
- (11) Door panel (side)
- (12) Side panel - rear of the B-pillar
- (13) Roof (or convertible top)
- (14) Roof side rail
- (15) Windshield
- (16) Windshield header
- (17) Window frame
- (18) Floor pan (includes sill)
- (19) Backlight header
- (20) Front seat back
- (21) Second seat back
- (22) Third seat back
- (23) Fourth seat back
- (24) Fifth seat back
- (25) Seat cushion
- (26) Back door/panel (e.g., tailgate)
- (27) Other interior component (specify): _____

Exterior Components

- (30) Hood
- (31) Outside surface of this vehicle (specify): _____
- (32) Other exterior object in the environment (specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): _____
- (99) Unknown

LOCATION OF INTRUSION

Front Seat

- (11) Left
- (12) Middle
- (13) Right

Second Seat

- (21) Left
- (22) Middle
- (23) Right

Third Seat

- (31) Left
- (32) Middle
- (33) Right

Fourth Seat

- (41) Left
- (42) Middle
- (43) Right

(97) Catastrophic

- (98) Other enclosed area (specify) _____

(99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 3 centimeters but < 8 centimeters
- (2) ≥ 8 centimeters but < 15 centimeters
- (3) ≥ 15 centimeters but < 30 centimeters
- (4) ≥ 30 centimeters but < 46 centimeters
- (5) ≥ 46 centimeters but < 61 centimeters
- (6) ≥ 61 centimeters
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE

—

DAMAGE VALUE

=

DEFORMATION

—

=

—

=

—

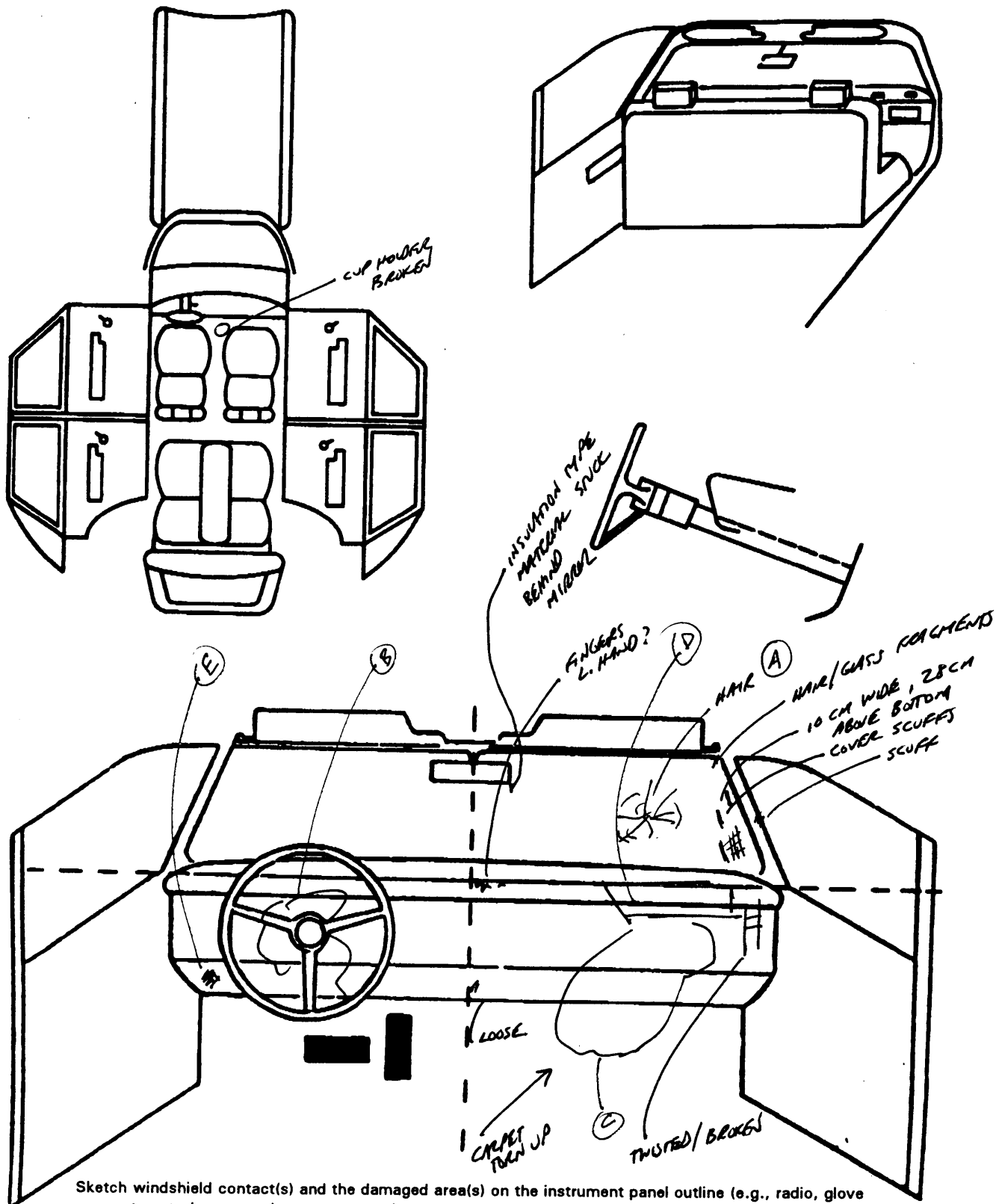
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VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a child safety seat is present, encode the data on the back of this page 11.

If the vehicle has automatic restraints available, encode the appropriate data on page 6.

		Left	Center	Right
FIRST	A-Availability	4		4
	B-Evidence of usage	04		04
	C-Used in this crash?	YES / DRIP ATTEN		YES / LOCKING / INT.
	D-Proper Use	1		0
	E-Failure Modes	1		0
	F-Anchorage Adjustment	3		3 - 1 QUICK HIGH RYAN (L)
SECOND	A-Availability	4	3	4
	B-Evidence of usage	04	03	04
	C-Used in this crash?	NO	NO	YES
	D-Proper Use	0	0	1
	E-Failure Modes	4	0	1
	F-Anchorage Adjustment	1	0	1
OTHER	A-Availability			
	B-Evidence of usage			
	C-Used in this crash?			
	D-Proper Use			
	E-Failure Modes			
	F-Anchorage Adjustment			

A-Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

- (9) Unknown

B/C-Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

D-Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):
- (8) Other improper use of manual belt system (specify):

- (9) Unknown

E-Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other manual belt failure (specify):
- (9) Unknown

F-Shoulder Belt Upper Anchorage Adjustment

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Frontal Air Bags--Left Front	Frontal Air Bags-Right Front	Other Air Bag
F I R S T	Availability/Function	/	/	/
	Deployment	/	/	/
	Failure	/	/	/

Air Bag System Availability/Function

- (0) Not equipped/not available
(1) Air bag

Non-functional

- (2) Air bag disconnected (specify): _____

- (3) Air bag not reinstalled
(9) Unknown

**Air Bag System Deployment
(This Occupant Position)**

- (0) Not equipped/not available
(1) Deployed during accident (as a result of impact)
(2) Deployed inadvertently just prior to accident
(3) Deployed, accident sequence undetermined
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(5) Unknown if deployed
(7) Nondeployed
(9) Unknown

Are There Indications of Air Bag System Failure? (This Occupant Position)

- (0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

AUTOMATIC BELTS

		Left	Right
F I R S T	A-Availability/Function	/	/
	B-Use	/	/
	C-Type	/	/
	D-Proper Use	/	/
	E-Failure Modes	/	/

A-Automatic (Passive) Belt System Availability/Function

- (0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
(9) Unknown

B-Automatic (Passive) Belt System Use

- (0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)
(3) Automatic belt use unknown
(9) Unknown

C-Automatic (Passive) Belt System Type

- (0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

D-Proper Use of Automatic (Passive) Belt System

- (0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____

- (8) Other improper use of automatic belt system (specify): _____
(9) Unknown

E-Automatic (Passive) Belt Failure Modes During Accident

- (0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify): _____
(8) Other automatic belt failure (specify): _____
(9) Unknown

FIRST SEAT FRONTAL AIR BAGS

NOTES: Encode the applicable data *for the driver and first seat passenger* in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

	Driver	Passenger
A-Type of air bag?	1	1
B-Flaps open at tear points?	2	2
C-Flaps damaged?	1	2
D-Air bag damaged?	01	01
E-Source of air bag damage	01	01
F-Air bag tethered?	1	1
G-Air bag have vent ports?	2, 2	2, 2
H-Other occupant contact air bag?	1	2
I-Occupant wearing eyewear?	4	4

A-Type of Air Bag

- (0) Not equipped/not available
- (1) Original manufacturer installed system
- (2) Retrofitted air bag
- (3) Replacement air bag
- (8) Unknown type of air bag
- (9) Unknown

B-Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?

- (0) Not equipped/not available
- (1) No
- (2) Yes
- (3) Deployed, unknown if flap(s) opened at designated tear points
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

C-Were Air Bag Module Cover Flap(s) Damaged?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if air bag module cover flap(s) damaged
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

D-Was There Damage To The Air Bag?

- (00) Not equipped/not available
- (01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured
- (03) Cut
- (04) Torn
- (05) Holed
- (06) Burned
- (07) Abraded
- (88) Other damage (specify):

- (95) Damaged, details unknown
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

E-Source of Air Bag Damage

- (00) Not equipped/not available
- (01) Not damaged
- (02) Object worn by occupant, (specify):
- (03) Object carried by occupant, (specify):
- (04) Adaptive/assistive controls, (specify):
- (05) Fire in vehicle
- (06) Thermal burns
- (07) Rescue or emergency efforts
- (88) Other damage source (specify):
- (95) Damaged, unknown source
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

F-Was The Air Bag Tethered?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of tether straps):
- (3) Deployed, unknown if tethered
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

G-Did The Air Bag Have Vent Ports?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of vent ports):
- (3) Deployed, unknown if vent ports present
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

H-Was the Air Bag in this Occupant's Position Contacted by Another Occupant?

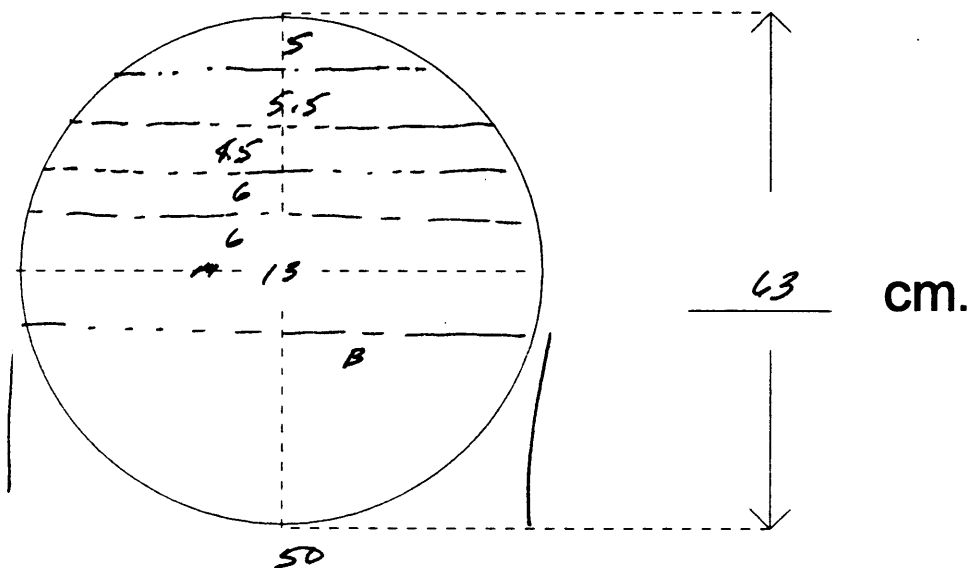
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if other occupant contact to air bag
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

I-Was This Occupant Wearing Eye-wear?

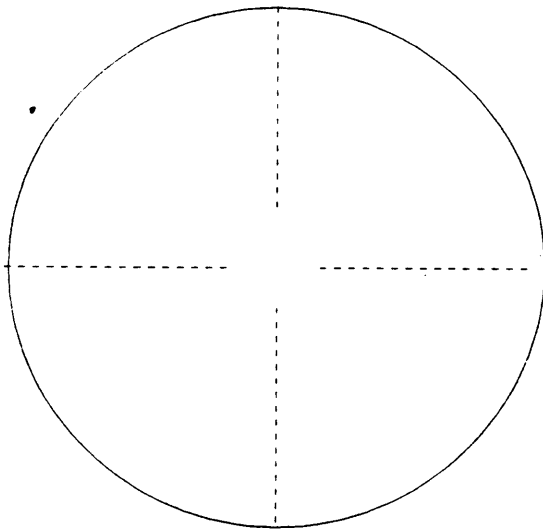
- (0) Not equipped/not available
- (1) No
- (2) Eyeglasses/sunglasses
- (3) Contact lenses
- (4) Deployed, unknown if eyewear worn
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

DRIVER AIR BAG DAMAGE AND CONTACT SKETCHES

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Front)



2. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Back)

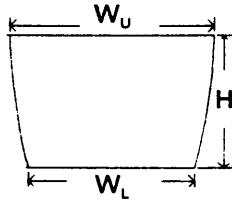


DRIVER AIR BAG SKETCHES (Cont'd)

3. DRIVER AIR BAG MODULE COVER FLAP SIZE (SINGLE)

width (W_U) _____ width (W_L) _____

height (H) _____



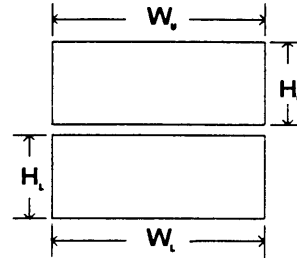
4. DRIVER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

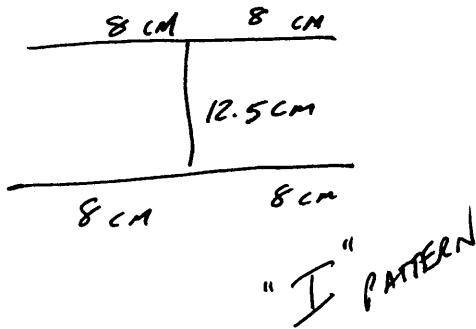
b. Lower Flap

width (W_U) _____ width (W_L) _____

height (H_U) _____ height (H_L) _____

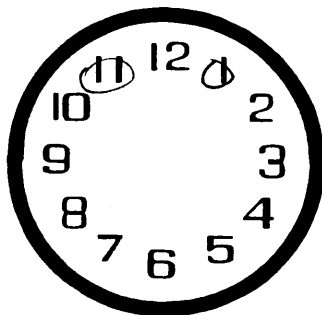


5. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE



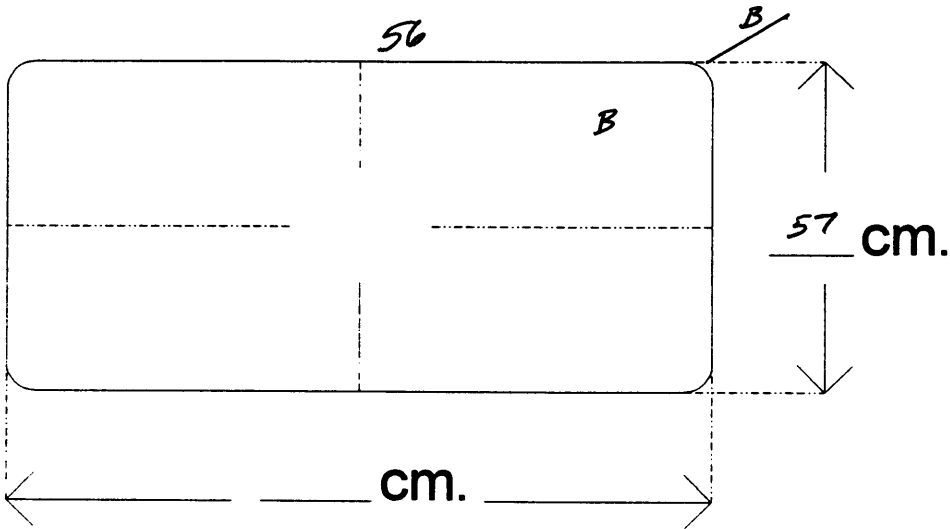
6. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

7. SKETCH LOCATION OF CIRCULAR AIR BAG VENT PORTS

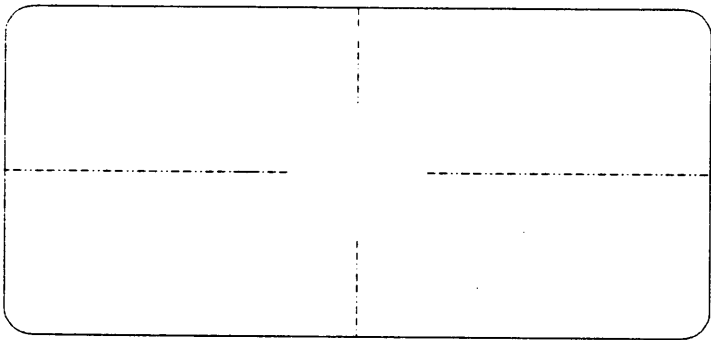


PASSENGER AIR BAG DAMAGE AND CONTACT SKETCHES

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Front)



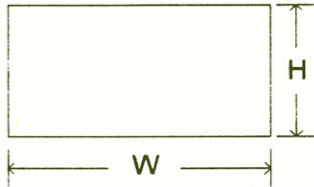
2. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Back)



PASSENGER AIR BAG SKETCHES (Cont'd)

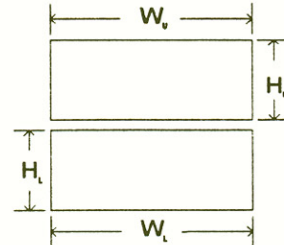
3. PASSENGER AIR BAG MODULE COVER FLAP SIZE (SINGLE)

width (W) _____
height (H) _____



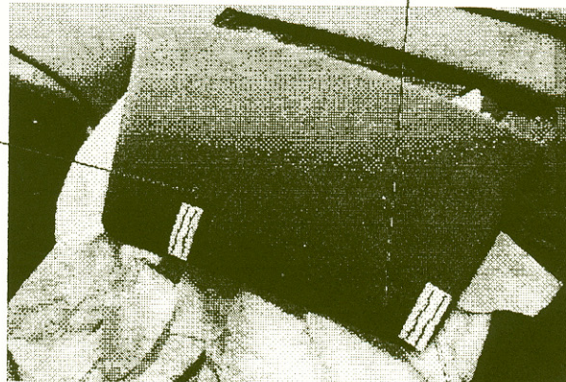
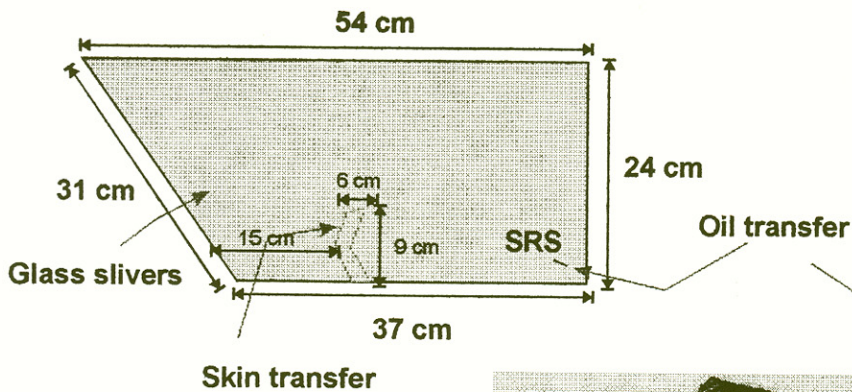
4. PASSENGER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap b. Lower Flap
width (W_U) _____ width (W_L) _____
height (H_U) _____ height (H_L) _____



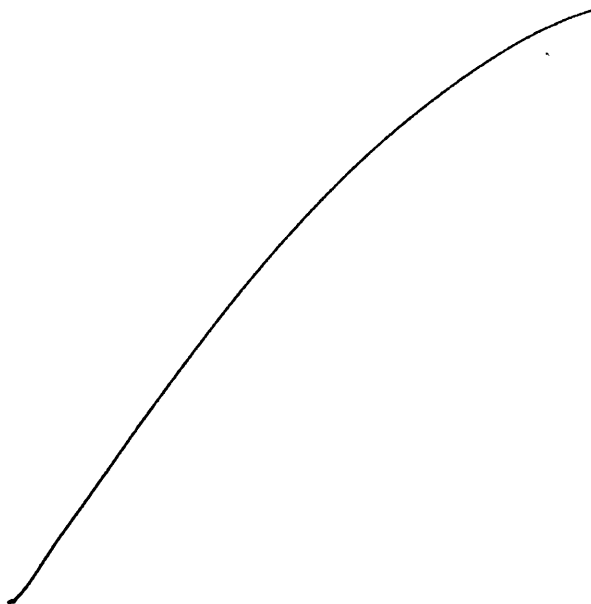
5. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

6. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS AND SIZE

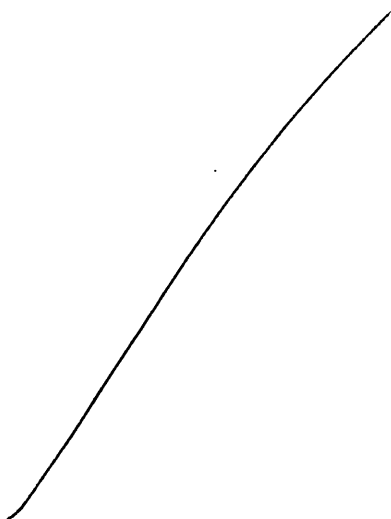


"OTHER" AIR BAG DAMAGE AND CONTACT SKETCHES

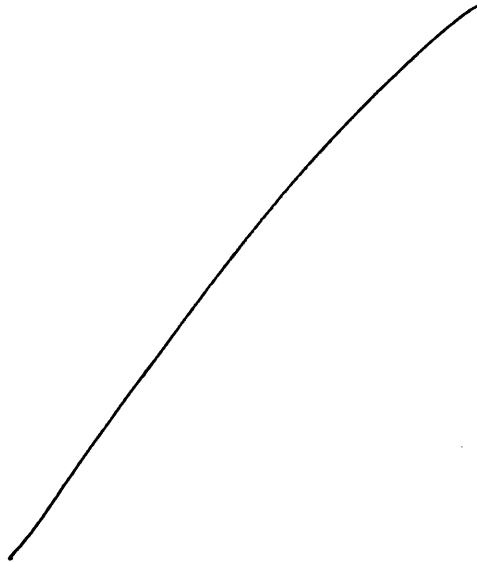
1. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Front)



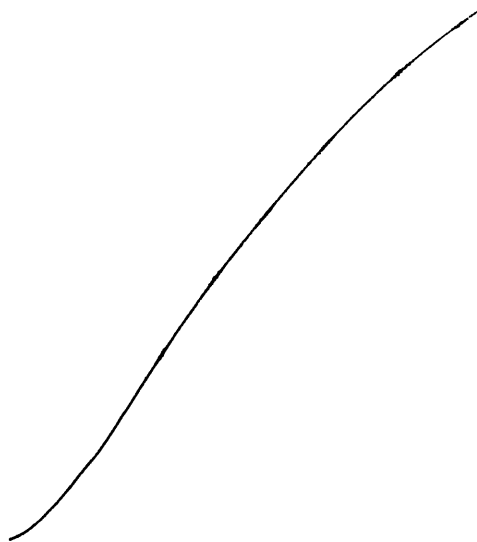
2. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Back)



3. SKETCH AIR BAG MODULE FLAP AND SIZE OR OPENING FOR AIRBAG



4. SKETCH AIR BAG VENT PORTS



HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found on the next page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	A-Head Restraint Type/Damage	3	/	3
	B-Seat Type	01		01
	C-Seat Orientation	1		1
	D-Seat Track Position	2		6
	E-Seat Back Incline Pre/Post Impact	14		14
	F-Seat Performance	1		1
SECOND	A-Head Restraint Type/Damage	0	0	0
	B-Seat Type	03	03	03
	C-Seat Orientation	1	1	1
	D-Seat Track Position	1	1	1
	E-Seat Back Incline Pre/Post Impact	01	01	01
	F-Seat Performance	1	1	1
THIRD	A-Head Restraint Type/Damage			
	B-Seat Type			
	C-Seat Orientation	/	/	/
	D-Seat Track Position	/	/	/
	E-Seat Back Incline Pre/Post Impact	/	/	/
	F-Seat Performance			
OTHER	A-Head Restraint Type/Damage			
	B-Seat Type			
	C-Seat Orientation	/	/	/
	D-Seat Track Position	/	/	/
	E-Seat Back Incline Pre/Post Impact	/	/	/
	F-Seat Performance			

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

HEAD RESTRAINTS/SEAT EVALUATION

A-Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other _____
- (9) Unknown

B-Seat Type (this Occupant Position)

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Box mounted seat (i.e., van type)
- (10) Other seat type (specify): _____
- (99) Unknown

C-Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): _____
- (9) Unknown

D-Seat Track Adjusted Position Prior To Impact

- (0) Occupant not seated or no seat
- (1) Non-adjustable seat track

Adjustable Seat Track

- (2) Seat at forward most track position
- (3) Seat between forward most and middle track positions
- (4) Seat at middle track position
- (5) Seat between middle and rear most track positions
- (6) Seat at rear most track position
- (9) Unknown

E-Seat Back Incline Prior and Post Impact

- (00) Occupant not seated or no seat
- (01) Not adjustable

Upright prior to impact

- (11) Moved to completely rearward position
- (12) Moved to rearward midrange position
- (13) Moved to slightly rearward position
- (14) Retained pre-impact position
- (15) Moved to slightly forward position
- (16) Moved to forward midrange position
- (17) Moved to completely forward position

Slightly reclined prior to impact

- (21) Moved to completely rearward position
- (22) Moved to rearward midrange position
- (23) Retained pre-impact position
- (24) Moved to upright position
- (25) Moved to slightly forward position
- (26) Moved to forward midrange position
- (27) Moved to completely forward position

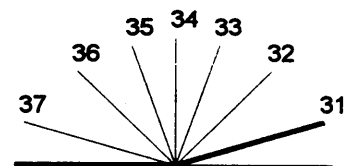
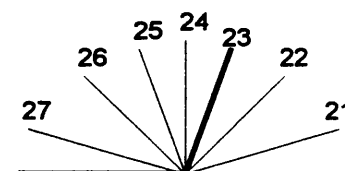
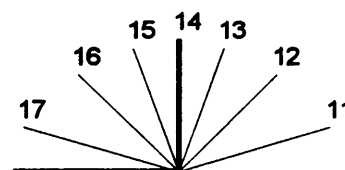
Completely reclined prior to impact

- (31) Retained pre-impact position
- (32) Moved to rearward midrange position
- (33) Moved to slightly rearward position
- (34) Moved to upright position
- (35) Moved to slightly forward position
- (36) Moved to forward midrange position
- (37) Moved to completely forward position

- (99) Unknown

F-Seat Performance (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): _____
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____
- (7) Combination of above (specify): _____
- (8) Other (specify): _____
- (9) Unknown

Coding diagrams for *Seat Back Incline Position Prior and Post Impact*

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model						

Specify Below for Each Child Safety Seat

1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify): _____
- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify): _____

- (09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify): _____

- (19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify): _____

- (29) Unknown orientation

- (99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage

Note: Options Below Are Used for Variables 3-5.

- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

- (99) Unknown if child safety seat used

6. Child Safety Seat Make/Model

(Specify make/model and occupant number)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No [☒] Yes [☐]

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection

- (1) Complete ejection
(2) Partial ejection
(3) Ejection, Unknown degree
(9) Unknown

Ejection Area

- (1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear

(7) Roof

- (8) Other area (e.g., back of pickup, etc.) (specify):

- (9) Unknown

Ejection Medium

- (1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify):

(5) Integral structure

- (8) Other medium (specify):

- (9) Unknown

Medium Status (Immediately Prior to Impact)

- (1) Open
(2) Closed
(3) Integral structure
(9) Unknown

ENTRAPMENT No [☒] Yes [☐]

Describe entrapment mechanism: _____

Component(s): _____

(Note on vehicle interior sketch)

National Highway Traffic Safety
AdministrationNATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

4. Occupant Number

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

Code actual height to the nearest
centimeter.

(999) Unknown

_____ inches X 2.54 = _____ centimeters

8. Occupant's Weight

Code actual weight to the nearest
kilogram.

(999) Unknown

_____ pounds X .4536 = _____ kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front of
seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection

φ

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area

φ

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

14. Ejection Medium

φ

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

15. Medium Status (Immediately Prior To Impact)

φ

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment

φ

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.
(specify): _____

(9) Unknown

17. Occupant Mobility

4

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or disoriented
- (2) Removed from vehicle due to injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (9) Unknown

BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify): _____

(9) Unknown

19. Manual (Active) Belt System Use φ 4

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): _____

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify): _____

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify): _____
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts 1

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown

21. Manual (Active) Belt Failure Modes During Accident 1

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

(6) Broken retractor

(7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown

22. Shoulder Belt Upper Anchorage Adjustment 3

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function φ

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use φ

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type φ

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System φ

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or

automatic shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of automatic belt system (specify): _____

(9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident φ

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

(6) Broken retractor

(7) Combination of above (specify): _____

(8) Other automatic belt failure (specify): _____

(9) Unknown

POLICE REPORTED RESTRAINT USE

28. Police Reported Belt Use

4

- (0) None used
- (1) Police did not indicate belt use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Automatic belt
- (8) Other type belt, (specify):

(9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function

2

- (0) No air bag available
- (1) Police did not indicate air bag availability/function
- (2) Deployed
- (3) Not deployed
- (4) Unknown if deployed
- (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- ☐ Not equipped/not available/destroyed or rendered inoperative
- ☒ Vehicle inspection
- ☐ Official injury data
- ☐ Driver/occupant interview
- ☐ Other (specify):

☐ Unknown if belt used

AIR BAG SYSTEM FUNCTION

30. Frontal Air Bag System

1

Availability/Function

(This Occupant Position)

- (0) Not equipped/not available
- (1) Air bag

Non-functional(2) Air bag disconnected (specify):(3) Air bag not reinstalled(9) Unknown

31. Frontal Air Bag System Deployment

1

(This Occupant Position)

- (0) Not equipped/not available
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

32. Other Than First Seat Frontal Air Bag

0

Availability/Function

(This Occupant Position)

- (0) Not equipped/not available
- (1) Air bag

Non-functional(2) Air bag disconnected (specify):(3) Air bag not reinstalled(9) Unknown*Specify type of "other" air bag present:*

33. Air Bag(s) Deployment, Other Than First

0

Seat Frontal (This Occupant Position)

- (0) Not equipped with an "other" air bag
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

34. Are There Indications of Air Bag System Failure?

1

(This Occupant Position)

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):

(9) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 9

- (0) Not equipped/not available
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)
(3) One previous accident with deployment
(4) More than one previous accident with at least one deployment
(8) Previous accidents, unknown deployment status
(9) Unknown

36. Type of Air Bag 1

- (0) Not equipped/not available
(1) Original manufacturer installed system
(2) Retrofitted air bag
(3) Replacement air bag
(8) Unknown type of air bag
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 9

- (0) Not equipped/not available
(1) No prior maintenance
(2) Yes, prior maintenance (specify): _____

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 0 1

(00) Not equipped/not available

Code the accident event sequence number that initiated the air bag deployment

- (96) Deployed, unknown event
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

39. CDC For Air Bag Deployment Impact 1

- (0) Not equipped/not available
(1) Highest delta V
(2) Second highest delta V
(3) Other non-coded delta V (specify): _____

- (6) Deployed, unknown event
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

40. Longitudinal Component of Delta V For Air Bag Deployment Impact + 0 0 2 2

(-000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

- (-996) Deployment, unknown longitudinal Delta V
(-997) Not deployed
(-998) Unknown if deployed
(-999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 2

- (0) Not equipped/not available
(1) No
(2) Yes
(3) Deployed, unknown if flap(s) opened at designated tear points
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 1

- (0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(3) Deployed, unknown if air bag module cover flap(s) damaged
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

43. Was There Damage To The Air Bag? 0 1

- (00) Not equipped/not available
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured
(03) Cut
(04) Torn
(05) Holed
(06) Burned
(07) Abraded
(88) Other damage (specify): _____

- (95) Damaged, details unknown
(96) Deployed, unknown if damaged
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM
EVALUATION *continued*

HEAD RESTRAINT AND SEAT EVALUATION

44. Source of Air Bag Damage 01

(00) Not equipped/not available

(01) Not damaged

(02) Object worn by occupant, (specify):

(03) Object carried by occupant, (specify):

(04) Adaptive/assistive controls, (specify):

(05) Fire in vehicle

(06) Thermal burns

(07) Rescue or emergency efforts

(08) Other damage source (specify):

(95) Damaged, unknown source

(96) Deployed, unknown if damaged

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

45. Was The Air Bag Tethered? 1

(0) Not equipped/not available

(1) No

(2) Yes (specify number of tether straps):

(3) Deployed, unknown if tethered

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

46. Did The Air Bag Have Vent Ports? 2

(0) Not equipped/not available

(1) No

(2) Yes (specify number of vent ports): 2

(3) Deployed, unknown if vent ports present

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

47. Was the Air Bag in this Occupant's Position
Contacted by Another Occupant? 1

(0) Not equipped/not available

(1) No

(2) Yes (specify):

(3) Deployed, unknown if other occupant contact to
air bag

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

48. Was This Occupant Wearing Eye-wear? 4

(0) Not equipped/not available

(1) No

(2) Eyeglasses/sunglasses

(3) Contact lenses

(4) Deployed, unknown if eyewear worn

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

49. Head Restraint Type/Damage by Occupant
at This Occupant Position 3

(0) No head restraints

(1) Integral—no damage

(2) Integral—damaged during accident

(3) Adjustable—no damage

(4) Adjustable—damaged during accident

(5) Add-on—no damage

(6) Add-on—damaged during accident

(8) Other (specify):

(9) Unknown

50. Seat Type (this Occupant Position) 01

(00) Occupant not seated or no seat

(01) Bucket

(02) Bucket with folding back

(03) Bench

(04) Bench with separate back cushions

(05) Bench with folding back(s)

(06) Split bench with separate back cushions

(07) Split bench with folding back(s)

(08) Pedestal (i.e., column supported)

(09) Box mounted seat (i.e., van type)

(10) Other seat type (specify):

(99) Unknown

51. Seat Orientation (this Occupant Position) 1

(0) Occupant not seated or no seat

(1) Forward facing seat

(2) Rear facing seat

(3) Side facing seat (inward)

(4) Side facing seat (outward)

(8) Other (specify):

(9) Unknown

52. Seat Track Adjusted Position Prior To Impact 2

(0) Occupant not seated or no seat

(1) Non-adjustable seat track

Adjustable Seat Track

(2) Seat at forward most track position

(3) Seat between forward most and middle track
positions

(4) Seat at middle track position

(5) Seat between middle and rear most track
positions

(6) Seat at rear most track position

(9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 14

(00) Occupant not seated or no seat

(01) Not adjustable

Upright prior to impact

(11) Moved to completely rearward position

(12) Moved to rearward midrange position

(13) Moved to slightly rearward position

(14) Retained pre-impact position

(15) Moved to slightly forward position

(16) Moved to forward midrange position

(17) Moved to completely forward position

Slightly reclined prior to impact

(21) Moved to completely rearward position

(22) Moved to rearward midrange position

(23) Retained pre-impact position

(24) Moved to upright position

(25) Moved to slightly forward position

(26) Moved to forward midrange position

(27) Moved to completely forward position

Completely reclined prior to impact

(31) Retained pre-impact position

(32) Moved to rearward midrange position

(33) Moved to slightly rearward position

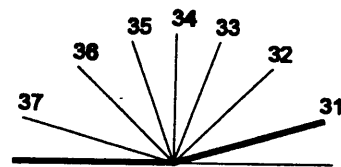
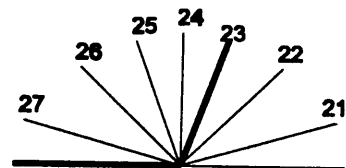
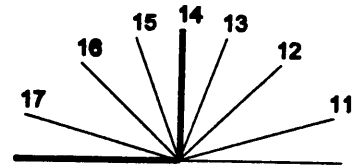
(34) Moved to upright position

(35) Moved to slightly forward position

(36) Moved to forward midrange position

(37) Moved to completely forward position

(99) Unknown

54. Seat Performance (this Occupant Position) 1

(0) Occupant not seated or no seat

(1) No seat performance failure(s)

(2) Seat adjusters failed

(3) Seat back folding locks or "seat back" failed
(specify): _____

(4) Seat track/anchors failed

(5) Deformed by impact of occupant

(6) Deformed by passenger compartment intrusion,
(specify): _____

(7) Combination of above (specify): _____

(8) Other (specify): _____

(9) Unknown

CHILD SAFETY SEAT

55. Child Safety Seat Make/Model φ φ φ

(000) No child safety seat

Applicable codes are found in your NASS CDS
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat φ

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation φ φ

(00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage φ φ59. Child Safety Seat Shield Usage φ φ60. Child Safety Seat Tether Usage φ φNote: Options below applicable to
Variables OA58-OA60.

(00) No child safety seat

Not Designed With Harness/Shield/Tether(01) After market harness/shield/tether
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market
harness/shield/tether added(09) Unknown if harness/shield/tether
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES**61. Injury Severity (Police Rating)**1

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality0

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):

- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment)0

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

- (9) Unknown

64. Hospital Stay0 0

- (00) Not Hospitalized
- _____ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost9 9

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP WORK HERE**VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**



GENERAL VEHICLE FORM

1. Primary Sampling Unit Number _____

2. Case Number - Stratum A B 1 23. Vehicle Number 0 2

VEHICLE IDENTIFICATION

4. Vehicle Model Year 8 7Code the last two digits of the model year
(99) Unknown5. Vehicle Make (specify): 1 2FORDApplicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(99) Unknown6. Vehicle Model (specify): 0 1 5TEMPO (ALL WHEEL DRIVE)Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual. 2/2
(999) Unknown7. Body Type 0 4Note: Applicable codes may be found on
the back of this page.

8. Vehicle Identification Number

1 F A B P 3 9 5 4 H K X X X X X X
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Left justify; Slash zeros and letter Z (0 and Z)

No VIN—Code all zeros

Unknown—Code all nines

9. Vehicle Special Use (This Trip) 0

(0) No special use

(1) Taxi

(2) Vehicle used as school bus

(3) Vehicle used as other bus

(4) Military

(5) Police

(6) Ambulance

(7) Fire truck or car

(8) Other (specify): _____

(9) Unknown

OFFICIAL RECORDS

10. Police Reported Vehicle Disposition 1

(0) Not towed due to vehicle damage

(1) Towed due to vehicle damage

(9) Unknown

11. Police Reported Travel Speed 9 9 9Code to the nearest kmph (NOTE: 000 means
less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

_____ mph X 1.6093 = _____ kmph

12. Speed Limit 0 7 2

(000) No statutory limit

Code posted or statutory speed limit
in kmph

(999) Unknown

45 mph X 1.6093 = 0 7 2 kmph13. Police Reported Alcohol Presence For Driver 0

(0) No alcohol present

(1) Yes alcohol present

(7) Not reported

(8) No driver present

(9) Unknown

14. Alcohol Test Result For Driver 9 6Code actual value (decimal implied
before first digit—0.xx)

(95) Test refused

(96) None given

(97) AC test performed, results unknown

(98) No driver present

(99) Unknown

Source: _____

15. Police Reported Other Drug Presence For
Driver 0

(0) No other drug(s) present

(1) Yes other drug(s) present

(7) Not reported

(8) No driver present

(9) Unknown

16. Other Drug Specimen Test Result For Driver 0

(0) No specimen test given

(1) Drug(s) not found in specimen

(2) Drug(s) found in specimen, (specify): _____

(3) Specimen test given, results unknown or not
obtained

(8) No driver present

(9) Unknown if specimen test given

17. Driver's Zip Code _____

(00001) Driver not a resident of U.S. or territories

Code actual 5-digit zip code

(99998) No driver present

(99999) Unknown

18. Driver's Race/Ethnic Origin 9

(1) White (non-Hispanic)

(2) Black (non-Hispanic)

(3) White (Hispanic)

(4) Black (Hispanic)

(5) American Indian, Eskimo or Aleut

(6) Asian or Pacific Islander

(7) Other (specify): _____

(8) No driver present

(9) Unknown

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): _____
- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

Utility Vehicles ($\leq 4,500$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

Van Based Light Trucks ($\leq 4,500$ kgs GVWR)

- (20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ($\leq 4,500$ kgs GVWR)
- (23) Van based motorhome ($\leq 4,500$ kgs GVWR)
- (24) Van based school bus ($\leq 4,500$ kgs GVWR)
- (25) Van based other bus ($\leq 4,500$ kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): _____
- (29) Unknown van type

Light Conventional Trucks (Pickup style cab, $\leq 4,500$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

Other Light Trucks ($\leq 4,500$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): _____
- (59) Unknown bus type

Medium/Heavy Trucks ($> 4,500$ kgs GVWR)

- (60) Step van ($> 4,500$ kgs GVWR)
- (61) Single unit straight truck ($4,500$ kgs $<$ GVWR $\leq 8,850$ kgs)
- (62) Single unit straight truck ($8,850$ kgs $<$ GVWR $\leq 12,000$ kgs)
- (63) Single unit straight truck ($> 12,000$ kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): _____
- (89) Unknown motored cycle type

Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

PRECRASH ENVIRONMENTAL DATA19. Relation To Interchange Or Junction 2

- (0) Non-interchange area and non-junction
 (1) Interchange area related

Non-Interchange junctions

- (2) Intersection related
 (3) Driveway, alley access related
 (4) Other junction (specify) _____

(5) Unknown type of junction

(9) Unknown

20. Trafficway Flow φ

- (0) Not physically divided (two way traffic)
 (1) Divided trafficway-median strip without positive barrier
 (2) Divided trafficway-median strip with positive barrier
 (3) One way traffic
 (9) Unknown

21. Number Of Travel Lanes 5

- (1) One
 (2) Two
 (3) Three
 (4) Four
 (5) Five
 (6) Six
 (7) Seven or more
 (9) Unknown

22. Roadway Alignment 1

- (1) Straight
 (2) Curve right
 (3) Curve left
 (9) Unknown

23. Roadway Profile 1

- (1) Level
 (2) Uphill grade (>2%)
 (3) Hill crest
 (4) Downhill grade (>2%)
 (5) Sag
 (9) Unknown

24. Roadway Surface Type 2

- (1) Concrete
 (2) Bituminous (asphalt)
 (3) Brick or block
 (4) Slag, gravel, or stone
 (5) Dirt
 (8) Other (specify): _____
 (9) Unknown

25. Roadway Surface Condition 1

- (1) Dry
 (2) Wet
 (3) Snow or slush
 (4) Ice
 (5) Sand, dirt, or oil
 (8) Other (specify): _____
 (9) Unknown

26. Light Conditions 5

- (1) Daylight
 (2) Dark
 (3) Dark, but lighted
 (4) Dawn
 (5) Dusk
 (9) Unknown

27. Atmospheric Conditions φ

- (0) No adverse atmospheric-related driving conditions
 (1) Rain
 (2) Sleet/hail
 (3) Snow
 (4) Fog
 (5) Rain and fog
 (6) Sleet and fog
 (7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): _____
 (9) Unknown

28. Traffic Control Device φ

- (0) No traffic control(s)
 (1) Traffic control signal (not RR crossing)

Regulatory

- (2) Stop sign
 (3) Yield sign
 (4) School zone sign
 (5) Other regulatory sign (specify): _____

(6) Warning sign (not RR crossing)

(7) Unknown sign

(8) Miscellaneous/other controls including RR controls (specify): _____

(9) Unknown

29. Traffic Control Device Functioning φ

- (0) No traffic control device
 (1) Traffic control device not functioning (specify) _____
 (2) Traffic control device functioning properly
 (9) Unknown

PRECRASH DRIVER RELATED DATA

30. Driver's Distraction/Inattention To Driving 97
(Prior To Recognition Of Critical Event)
- (00) No driver present
 - (01) Attentive or not distracted
 - (02) Looked but did not see
Distractions
 - (03) By other occupant(s), (specify): _____
 - (04) By moving object in vehicle (specify): _____
 - (05) While talking or listening to cellular phone (specify location and type of phone): _____
 - (06) While dialing cellular phone (specify location and type of phone): _____
 - (07) While adjusting climate controls
 - (08) While adjusting radio, cassette, CD (specify): _____
 - (09) While using other device/object in vehicle (specify): _____
 - (10) Sleepy or fell asleep
 - (11) Distracted by outside person, object, or event (specify): _____
 - (12) Eating or drinking
 - (13) Smoking related
 - (97) Distracted/inattentive, details unknown
 - (98) Other, distraction (specify): _____
 - (99) Unknown 11
31. Pre-Event Movement (Prior to Recognition of Critical Event) 11
- (00) No driver present
 - (01) Going straight
 - (02) Decelerating in traffic lane
 - (03) Accelerating in traffic lane
 - (04) Starting in traffic lane
 - (05) Stopped in traffic lane
 - (06) Passing or overtaking another vehicle
 - (07) Disabled or parked in travel lane
 - (08) Leaving a parking position
 - (09) Entering a parking position
 - (10) Turning right
 - (11) Turning left
 - (12) Making a U-turn
 - (13) Backing up (other than for parking position)
 - (14) Negotiating a curve
 - (15) Changing lanes
 - (16) Merging
 - (17) Successful avoidance maneuver to a previous critical event
 - (97) Other (specify): _____
 - (99) Unknown
32. Critical Precrash Event 15
This Vehicle Loss of Control Due To:
- (01) Blow out or flat tire
 - (02) Stalled engine
 - (03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
 - (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
 - (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
 - (06) Traveling too fast for conditions
 - (08) Other cause of control loss (specify): _____
 - (09) Unknown cause of control loss

This Vehicle Traveling

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (18) This vehicle decelerating
- (19) Unknown travel direction

Other Motor Vehicle In Lane

- (50) Other vehicle stopped
- (51) Traveling in same direction with lower steady speed
- (52) Traveling in same direction while decelerating
- (53) Traveling in same direction with higher speed
- (54) Traveling in opposite direction
- (55) In crossover
- (56) Backing
- (59) Unknown travel direction of other motor vehicle in lane

Other Motor Vehicle Encroaching Into Lane

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

Pedestrian, Pedalcyclist, or Other Nonmotorist

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian—unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): _____
- (84) Pedalcyclist or other nonmotorist approaching roadway, (specify): _____
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

Object or Animal

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location
- (98) Other critical precrash event (specify): _____
- (99) Unknown

<p>33. Attempted Avoidance Maneuver <u>01</u></p> <p>(00) No driver present (01) No avoidance maneuver (02) Braking (no lockup) (03) Braking (lockup) (04) Braking (lockup unknown) (05) Releasing brakes (06) Steering left (07) Steering right (08) Braking and steering left (09) Braking and steering right (10) Accelerating (11) Accelerating and steering left (12) Accelerating and steering right (98) Other action (specify): _____ (99) Unknown</p> <p>34. Pre-Impact Stability <u>1</u></p> <p>(0) No driver present (1) Tracking (2) Skidding longitudinally—rotation less than 30 degrees (3) Skidding laterally—clockwise rotation (4) Skidding laterally—counterclockwise rotation (7) Other vehicle loss-of-control (specify): _____ (9) Precrash stability unknown</p>	<p>35. Pre-Impact Location <u>2</u></p> <p>(0) No driver present (1) Stayed in original travel lane (2) Stayed on roadway but left original travel lane (3) Stayed on roadway, not known if left original travel lane (4) Departed roadway (5) Remained off roadway (6) Returned to roadway (7) Entered roadway (9) Unknown</p> <p>36. Accident Type <u>68</u></p> <p>(Note: Applicable codes on back of this page) (00) No impact Code the number of the diagram that best describes the accident circumstance (98) Other accident type (specify): _____ (99) Unknown</p>
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STOP HERE IF GV07 DOES NOT EQUAL 01 - 49

OCCUPANT RELATED

37. Driver Presence in Vehicle 1
 (0) Driver not present
 (1) Driver present
 (9) Unknown
38. Number of Occupants This Vehicle φ 1
 (00-96) Code actual number of occupants for this vehicle
 (97) 97 or more
 (99) Unknown
39. Number of Occupant Forms Submitted φ 1

AIR BAG RELATED

40. Is this an AOPS Vehicle? φ
 (0) No (includes unknown)
 (1) Yes - researcher determined
 (2) VIN determined air bag system
 (3) VIN determined automatic (passive) belts
 (4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal φ
 (0) Not equipped or not available
 (1) No air bags deployed
Single Air Bag Vehicle
 (2) Driver air bag deployed
 (3) Driver air bag, unknown if deployed
Multiple Air Bag Vehicle
 (4) Driver side only deployed
 (5) Passenger side only deployed
 (6) Driver and passenger side deployed
 (7) Driver and passenger side unknown if deployed
 (8) Air bag(s) deployed, details unknown
 (9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal φ
 (0) Not equipped with an "other" air bag
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

Specify type of "other" air bag present: _____

VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight 1, φ 9 0
 Code weight to nearest 10 kilograms.
 (045) Less than 450 kilograms
 (610) 6,100 kilograms or more
 (999) Unknown
 _____ lbs X .4536 = 1, φ 8/8 kgs

Source: _____

44. Vehicle Cargo Weight 9, 9 9 0
 Code weight to nearest 10 kilograms.
 (000) Less than 5 kilograms
 (450) 4,500 kilograms or more
 (999) Unknown
 _____ lbs X .4536 = _____ kgs

Source: _____

ROLLOVER DATA

45. Rollover φ φ
 (00) No rollover (no overturning)
Rollover (primarily about the longitudinal axis)
 (01-16) Code the number of quarter turns
 (17) Rollover, 17 or more quarter turns (specify):
 (98) Rollover—end-over-end (i.e., primarily about the lateral axis)
 (99) Rollover (overturn), details unknown
46. Rollover Initiation Type φ φ
 (00) No rollover
 (01) Trip-over
 (02) Flip-over
 (03) Turn-over
 (04) Climb-over
 (05) Fall-over
 (06) Bounce-over
 (07) Collision with another vehicle
 (08) Other rollover initiation type specify):
 (98) Rollover—end-over-end
 (99) Unknown rollover initiation type
47. Location of Rollover Initiation φ
 (0) No rollover
 (1) On roadway
 (2) On shoulder—paved
 (3) On shoulder—unpaved
 (4) On roadside or divided trafficway median
 (8) Rollover—end-over-end
 (9) Unknown
48. Rollover Initiation Object Contacted φ φ
 (Note: Applicable codes on back of page)
49. Location on Vehicle Where Initial Principal Tripping Force Is Applied φ
 (0) No rollover
 (1) Wheels/tires
 (2) Side plane
 (3) End plane
 (4) Undercarriage
 (5) Other location on vehicle (specify):
 (6) Non-contact rollover forces (specify):
 (8) Rollover—end-over-end
 (9) Unknown
50. Direction of Initial Roll φ
 (0) No rollover
 (1) Roll right - primarily about the longitudinal axis
 (2) Roll left - primarily about the longitudinal axis
 (8) Rollover—end-over-end
 (9) Unknown roll direction

CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

- (00) No rollover
- (01-30) — Vehicle Number

Noncollision

- (31) Turn-over — fall-over
- (32) No rollover impact initiation (end-over-end)
- (34) Jackknife

Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment

- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail)
(specify): _____

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): _____

- (69) Unknown fixed object

Collision with Nonfixed Object

- (70) Passenger car, light truck, van, or other vehicle not in-transport
- (71) Medium/heavy truck or bus not in-transport
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): _____

- (89) Unknown nonfixed object

- (98) Other event (specify): _____

- (99) Unknown event or object

VERRIDE/UNDERRIDE (THIS VEHICLE)**ACCIDENT RECONSTRUCTION PROGRAMS
HIGHEST DELTA V**51. Front Override/Underride (this Vehicle) φ52. Rear Override/Underride (this Vehicle) φ

- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride

*Override (see specific CDC)**[Between 2 CDS applicable vehicles (Bodytype, GV07=1-49)]*

- (1) 1st CDC
-
- (2) 2nd CDC
-
- (3) Other not automated CDC (specify):
-
- _____

*Underride (see specific CDC)**[Between 2 CDS applicable vehicles (Bodytype, GV07=1-49)]*

- (4) 1st CDC
-
- (5) 2nd CDC
-
- (6) Other not automated CDC (specify):
-
- _____

- (7) Medium/heavy truck or bus override (of any configuration)
-
- (9) Unknown

**HEADING ANGLE AT IMPACT FOR
HIGHEST DELTA V**

Values: (000)-(359) Code actual value

- (997) Noncollision
-
- (998) Impact with object
-
- (999) Unknown

53. Heading Angle For This Vehicle 2 9 φ54. Heading Angle For Other Vehicle 1 8 φ**RECONSTRUCTION DATA**55. Towed Trailing Unit φ

- (0) No towed unit
-
- (1) Yes—towed trailing unit
-
- (9) Unknown

56. Documentation of Trajectory Data for This Vehicle 1

- (0) No
-
- (1) Yes

57. Post Collision Condition of Tree or Pole (For Highest Delta V) φ

- (0) Not collision (for highest delta V) with tree or pole
-
- (1) Not damaged
-
- (2) Cracked/sheared
-
- (3) Tilted <45 degrees
-
- (4) Tilted ≥45 degrees
-
- (5) Uprooted tree
-
- (6) Separated pole from base
-
- (7) Pole replaced
-
- (8) Other (specify):
-
- _____

- (9) Unknown

58. Basis for Total (Resultant) Delta V (highest) φ 3

- (00) No vehicle inspection

Delta V Calculated

- (01) Reconstruction program
-
- damage only routine
-
- (02) Reconstruction program
-
- damage and trajectory routine
-
- (03) Missing vehicle algorithm

Delta V Not Calculated

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.

- (05) Rollover
-
- (06) Other non-horizontal forces
-
- (07) Sideswipe type damage
-
- (08) Severe override
-
- (09) Yielding object
-
- (10) Overlapping damage
-
- (11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.
-
- _____

- (98) Other, (specify):
-
- _____

COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V

4 3 232 Nearest kmph (highest)

Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

60. Longitudinal Component of Delta V

+ 0 4 1 8

Highest

-18 Nearest kmph (highest)

Nearest kmph (secondary)

(NOTE: 000 means greater than

-0.5 kmph and less than +0.5 kmph)

(±160) ±159.5 kmph and above

(999) Unknown

61. Lateral Component of Delta V

+ 0 4 2 6

Highest

-26 Nearest kmph (highest)

Nearest kmph (secondary)

(NOTE: 000 means greater than -0.5 kmph and less than +0.5 kmph)

(±160) ±159.5 kmph and above

(999) Unknown

62. Energy Absorption

0 5 4 3 0 050343 Nearest 100 joules (highest)

Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)

(9997) 999,650 joules or more

(9999) Unknown

63. Impact Speed

Highest

9 9 8

Nearest kmph (highest)

Nearest kmph (secondary)

(NOTE: 000 means

less than 0.5 kmph)

(160) 159.5 kmph and above

(998) Trajectory algorithm not run

(999) Unknown

DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V)

1

(0) No reconstruction

(1) Collision fits model — results appear reasonable

(2) Collision fits model — results appear high

(3) Collision fits model — results appear low

(4) Borderline reconstruction — results appear reasonable

OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed

Highest

31.2

Nearest kmph (highest)

Nearest kmph (secondary)

(NOTE: 000 means

less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

IS MISSING VEHICLE ALGORITHM APPLICABLE FOR THIS VEHICLE? [☒] YES [] NOIF YES: IS A COMPLETED PROGRAM SUMMARY INCLUDED? [☒] YES [] NO

ESTIMATED DELTA V

VEHICLE INSPECTION

66. Estimated Highest Delta V (Researcher Determined) φ

(0) Reconstruction Delta V coded

Estimated Delta V

(1) Less than 10 kmph

(2) ≥ 10 kmph but < 25 kmph

(3) ≥ 25 kmph but < 40 kmph

(4) ≥ 40 kmph but < 55 kmph

(5) ≥ 55 kmph

Other estimates of damage severity

(6) Minor

(7) Moderate

(8) Severe

(9) Unknown

67. Type of Vehicle Inspection φ

(0) No inspection

(1) Vehicle fully repaired-no damage evident

(2) Partial inspection (specify): _____

(3) Complete inspection

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67=0), ***

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.



OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

OCCUPANT'S SEATING

1. Primary Sampling Unit Number _____

2. Case Number - Stratum 4612

3. Vehicle Number 42

4. Occupant Number 41

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 47

Code actual age at time of accident.

(00) Less than one year old (specify by month): _____

(97) 97 years and older _____

(99) Unknown

6. Occupant's Sex 1

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height 999

Code actual height to the nearest
centimeter.

(999) Unknown

_____ inches X 2.54 = _____ centimeters

8. Occupant's Weight 999

Code actual weight to the nearest
kilogram.

(999) Unknown

_____ pounds X .4536 = _____ kilograms

9. Occupant's Role 1

(1) Driver

(2) Passenger

(9) Unknown

10. Occupant's Seat Position 11

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify): _____

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify): _____

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify): _____

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify): _____

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify): _____

(99) Unknown

11. Occupant's Posture 9

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front
of seat

(8) Other abnormal posture (specify): _____

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection φ

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area φ

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

14. Ejection Medium φ

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) φ

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment 1

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.
(specify): _____
- (9) Unknown

17. Occupant Mobility 2

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or not oriented to time or place
- (2) Removed from vehicle due to perceived serious injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (8) Removed from vehicle for other reasons
(specify): _____
- (9) Unknown

BELT SYSTEM FUNCTION

<p>18. Manual (Active) Belt System Availability <u>4</u></p> <p>(0) None available</p> <p>(1) Belt removed/destroyed</p> <p>(2) Shoulder belt</p> <p>(3) Lap belt</p> <p>(4) Lap and shoulder belt</p> <p>(5) Belt available—type unknown</p> <p><i>Integral Belt Partially Destroyed</i></p> <p>(6) Shoulder belt (lap belt destroyed/removed)</p> <p>(7) Lap belt (shoulder belt destroyed/removed)</p> <p>(8) Other belt (specify): _____</p> <p>(9) Unknown</p>	<p>22. Manual Shoulder Belt Upper Anchorage Adjustment <u>9</u></p> <p>(0) No manual shoulder belt</p> <p>(1) No upper anchorage adjustment for manual shoulder belt</p> <p><i>Adjustable shoulder Belt Upper Anchorage</i></p> <p>(2) In full up position</p> <p>(3) In mid position</p> <p>(4) In full down position</p> <p>(5) Position unknown</p> <p>(9) Unknown if position has adjustable upper anchorage adjustment</p>
<p>19. Manual (Active) Belt System Use <u>Φ 4</u></p> <p>(00) None used, not available, or belt removed/destroyed</p> <p>(01) Inoperative (specify): _____</p> <p>(02) Shoulder belt</p> <p>(03) Lap belt</p> <p>(04) Lap and shoulder belt</p> <p>(05) Belt used—type unknown</p> <p>(08) Other belt used (specify): _____</p> <p>(12) Shoulder belt used with child safety seat</p> <p>(13) Lap belt used with child safety seat</p> <p>(14) Lap and shoulder belt used with child safety seat</p> <p>(15) Belt used with child safety seat—type unknown</p> <p>(18) Other belt used with child safety seat (specify): _____</p> <p>(99) Unknown if belt used</p>	<p>23. Automatic (Passive) Belt System Availability/Function <u>Φ</u></p> <p>(0) Not equipped/not available</p> <p>(1) 2 point automatic belts</p> <p>(2) 3 point automatic belts</p> <p>(3) Automatic belts - type unknown</p> <p><i>Non-functional</i></p> <p>(4) Automatic belts destroyed or rendered inoperative</p> <p>(9) Unknown</p>
<p>20. Proper Use of Manual (Active) Belts <u>Φ</u></p> <p>(0) None used or not available</p> <p>(1) Belt used properly</p> <p>(2) Belt used properly with child safety seat</p> <p><i>Belt Used Improperly</i></p> <p>(3) Shoulder belt worn under arm</p> <p>(4) Shoulder belt worn behind back or seat</p> <p>(5) Belt worn around more than one person</p> <p>(6) Lap belt worn on abdomen</p> <p>(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____</p> <p>(8) Other improper use of manual belt system (specify): _____</p> <p>(9) Unknown</p>	<p>24. Automatic (Passive) Belt System Use <u>Φ</u></p> <p>(0) Not equipped/not available/destroyed or rendered inoperative</p> <p>(1) Automatic belt in use</p> <p>(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____</p> <p>(3) Automatic belt use unknown</p> <p>(9) Unknown</p>
<p>21. Manual (Active) Belt Failure Modes During Accident <u>Φ</u></p> <p>(0) No manual belt used or not available</p> <p>(1) No manual belt failure(s)</p> <p>(2) Torn webbing (stretched webbing not included)</p> <p>(3) Broken buckle or latchplate</p> <p>(4) Upper anchorage separated</p> <p>(5) Other anchorage separated (specify): _____</p> <p>(6) Broken retractor</p> <p>(7) Combination of above (specify): _____</p> <p>(8) Other manual belt failure (specify): _____</p> <p>(9) Unknown</p>	<p>25. Automatic (Passive) Belt System Type <u>Φ</u></p> <p>(0) Not equipped/not available</p> <p>(1) Non-motorized system</p> <p>(2) Motorized system</p> <p>(9) Unknown</p>
	<p>26. Proper Use of Automatic (Passive) Belt System <u>Φ</u></p> <p>(0) Not equipped/not available/not used</p> <p>(1) Automatic belt used properly</p> <p>(2) Automatic belt used properly with child safety seat</p> <p><i>Automatic Belt Used Improperly</i></p> <p>(3) Automatic shoulder belt worn under arm</p> <p>(4) Automatic shoulder belt worn behind back</p> <p>(5) Automatic belt worn around more than one person</p> <p>(6) Lap portion of automatic belt worn on abdomen</p> <p>(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____</p> <p>(8) Other improper use of automatic belt system (specify): _____</p> <p>(9) Unknown</p>
	<p>27. Automatic (Passive) Belt Failure Modes During Accident <u>Φ</u></p> <p>(0) Not equipped/not available/not in use</p> <p>(1) No automatic belt failure(s)</p> <p>(2) Torn webbing (stretched webbing not included)</p> <p>(3) Broken buckle or latchplate</p> <p>(4) Upper anchorage separated</p> <p>(5) Other anchorage separated (specify): _____</p> <p>(6) Broken retractor</p> <p>(7) Combination of above (specify): _____</p> <p>(8) Other automatic belt failure (specify): _____</p> <p>(9) Unknown</p>

POLICE REPORTED RESTRAINT USE	AIR BAG SYSTEM FUNCTION
<div> <div>28. Police Reported Belt Use</div> <div> <div> <div>(0) None used</div> <div>(1) Police did not indicate belt use</div> <div>(2) Shoulder belt</div> <div>(3) Lap belt</div> <div>(4) Lap and shoulder belt</div> <div>(5) Belt used, type not specified</div> <div>(6) Child safety seat</div> <div>(7) Automatic belt</div> <div>(8) Other type belt, (specify):</div> </div> <div> <div> <div>(9) Police indicated "unknown"</div> </div> </div> </div> </div> <div> <div>29. Police Reported Air Bag Availability/Function</div> <div> <div> <div>(0) No air bag available</div> <div>(1) Police did not indicate air bag availability/function</div> <div>(2) Deployed</div> <div>(3) Not deployed</div> <div>(4) Unknown if deployed</div> <div>(9) Police indicated "unknown"</div> </div> </div> </div> <div> <div>Check the Primary Source Used In Determining Belt Use.</div> <div> <div>[] Vehicle inspection</div> <div>[] Official injury data</div> <div>[] Driver/occupant interview</div> <div>[] Other (specify):</div> <div>[] Unknown if belt used</div> </div> </div>	<div> <div>30. Frontal Air Bag System Availability/Function (This Occupant Position)</div> <div> <div> <div>(0) Not equipped/not available</div> <div>(1) Air bag</div> </div> <div> <div>Non-functional</div> <div>(2) Air bag disconnected (specify):</div> <div>(3) Air bag not reinstalled</div> <div>(9) Unknown</div> </div> </div> </div> <div> <div>31. Frontal Air Bag System Deployment (This Occupant Position)</div> <div> <div> <div>(0) Not equipped/not available</div> <div>(1) Deployed during accident (as a result of impact)</div> <div>(2) Deployed inadvertently just prior to accident</div> <div>(3) Deployed, details unknown</div> <div>(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)</div> <div>(5) Unknown if deployed</div> <div>(7) Nondeployed</div> <div>(9) Unknown</div> </div> </div> </div> <div> <div>32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position)</div> <div> <div> <div>(0) Not equipped/not available</div> <div>(1) Air bag</div> </div> <div> <div>Non-functional</div> <div>(2) Air bag disconnected (specify):</div> <div>(3) Air bag not reinstalled</div> <div>(9) Unknown</div> <div>Specify type of "other" air bag present:</div> </div> </div> </div> <div> <div>33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position)</div> <div> <div> <div>(0) Not equipped with an "other" air bag</div> <div>(1) Deployed during accident (as a result of impact)</div> <div>(2) Deployed inadvertently just prior to accident</div> <div>(3) Deployed, details unknown</div> <div>(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)</div> <div>(5) Unknown if deployed</div> <div>(7) Nondeployed</div> <div>(9) Unknown</div> </div> </div> </div> <div> <div>34. Are There Indications of Air Bag System Failure? (This Occupant Position)</div> <div> <div> <div>(0) Not equipped/not available</div> <div>(1) No</div> <div>(2) Yes (specify):</div> <div>(9) Unknown</div> </div> </div> </div>

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? φ

(0) Not equipped/not available

(1) No previous accidents

Yes

(2) Previous accident(s) without deployment(s)

(3) One previous accident with deployment

(4) More than one previous accident with at least one deployment

(8) Previous accidents, unknown deployment status

(9) Unknown

36. Type of Air Bag φ

(0) Not equipped/not available

(1) Original manufacturer installed system

(2) Retrofitted air bag

(3) Replacement air bag

(8) Unknown type of air bag

(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? φ

(0) Not equipped/not available

(1) No prior maintenance

(2) Yes, prior maintenance (specify): _____

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number φ φ

(00) Not equipped/not available

Code the accident event sequence number that initiated the air bag deployment

(96) Deployed, unknown event

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

39. CDC For Air Bag Deployment Impact φ

(0) Not equipped/not available

(1) Highest delta V

(2) Second highest delta V

(3) Other non-coded delta V (specify): _____

(6) Deployed, unknown event

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

40. Longitudinal Component of

Delta V For Air Bag

Deployment Impact

(_000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

(_996) Deployment, unknown longitudinal Delta V

(_997) Not deployed

(_998) Unknown if deployed

(_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? φ

(0) Not equipped/not available

(1) No

(2) Yes

(3) Deployed, unknown if flap(s) opened at designated tear points

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? φ

(0) Not equipped/not available

(1) No

(2) Yes (specify): _____

(3) Deployed, unknown if air bag module cover flap(s) damaged

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

43. Was There Damage To The Air Bag? φ φ

(00) Not equipped/not available

(01) Not damaged

Yes - Air Bag Damage

(02) Ruptured

(03) Cut

(04) Torn

(05) Holed

(06) Burned

(07) Abraded

(88) Other damage (specify): _____

(95) Damaged, details unknown

(96) Deployed, unknown if damaged

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM
EVALUATION** *continued*

44. Source of Air Bag Damage φ 4
 (00) Not equipped/not available
 (01) Not damaged
 (02) Object worn by occupant, (specify):
 (03) Object carried by occupant, (specify):
 (04) Adaptive/assistive controls, (specify):
 (05) Fire in vehicle
 (06) Thermal burns
 (07) Rescue or emergency efforts
 (88) Other damage source (specify):
 (95) Damaged, unknown source
 (96) Deployed, unknown if damaged
 (97) Not deployed
 (98) Unknown if deployed
 (99) Unknown
45. Was The Air Bag Tethered? φ
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of tether straps):
 (3) Deployed, unknown if tethered
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
46. Did The Air Bag Have Vent Ports? φ
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of vent ports):
 (3) Deployed, unknown if vent ports present
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? φ
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify):
 (3) Deployed, unknown if other occupant contact to air bag
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? φ
 (0) Not air bag equipped/air bag not available
 (1) No
 (2) Eyeglasses/sunglasses
 (3) Contact lenses
 (4) Deployed, unknown if eyewear worn
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION

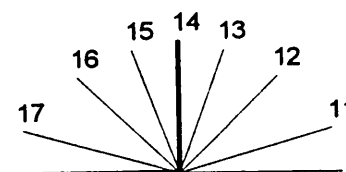
49. Head Restraint Type/Damage by Occupant at This Occupant Position 9
 (0) No head restraints
 (1) Integral—no damage
 (2) Integral—damaged during accident
 (3) Adjustable—no damage
 (4) Adjustable—damaged during accident
 (5) Add-on—no damage
 (6) Add-on—damaged during accident
 (8) Other (specify):
 (9) Unknown
50. Seat Type (this Occupant Position) 99
 (00) Occupant not seated or no seat
 (01) Bucket
 (02) Bucket with folding back
 (03) Bench
 (04) Bench with separate back cushions
 (05) Bench with folding back(s)
 (06) Split bench with separate back cushions
 (07) Split bench with folding back(s)
 (08) Pedestal (i.e., column supported)
 (09) Box mounted seat (i.e., van type)
 (10) Other seat type (specify):
 (99) Unknown
51. Seat Orientation (this Occupant Position) 9
 (0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 9
 (0) Occupant not seated or no seat
 (1) Non-adjustable seat track
- Adjustable Seat Track*
 (2) Seat at forward most track position
 (3) Seat between forward most and middle track positions
 (4) Seat at middle track position
 (5) Seat between middle and rear most track positions
 (6) Seat at rear most track position
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 99

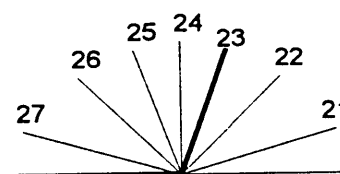
- (00) Occupant not seated or no seat
 (01) Not adjustable

Upright prior to impact

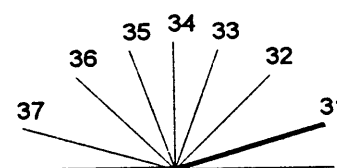
- (11) Moved to completely rearward position
 (12) Moved to rearward midrange position
 (13) Moved to slightly rearward position
 (14) Retained pre-impact position
 (15) Moved to slightly forward position
 (16) Moved to forward midrange position
 (17) Moved to completely forward position

***Slightly reclined prior to impact***

- (21) Moved to completely rearward position
 (22) Moved to rearward midrange position
 (23) Retained pre-impact position
 (24) Moved to upright position
 (25) Moved to slightly forward position
 (26) Moved to forward midrange position
 (27) Moved to completely forward position

***Completely reclined prior to impact***

- (31) Retained pre-impact position
 (32) Moved to rearward midrange position
 (33) Moved to slightly rearward position
 (34) Moved to upright position
 (35) Moved to slightly forward position
 (36) Moved to forward midrange position
 (37) Moved to completely forward position
 (99) Unknown

54. Seat Performance (this Occupant Position) 9

- (0) Occupant not seated or no seat
 (1) No seat performance failure(s)
 (2) Seat adjusters failed
 (3) Seat back folding locks or "seat back" failed
 (specify): _____
 (4) Seat track/anchors failed
 (5) Deformed by impact of occupant
 (6) Deformed by passenger compartment intrusion,
 (specify): _____
 (7) Combination of above (specify): _____
 (8) Other (specify): _____
 (9) Unknown

CHILD SAFETY SEAT

55. Child Safety Seat Make/Model Φ Φ Φ
 (000) No child safety seat
 Applicable codes are found in your NASS CDS
 Data Collection, Coding and Editing
 (950) Built-in child safety seat
 (997) Other make/model (specify):

(998) Unknown make/model
 (999) Unknown if child safety seat used

56. Type of Child Safety Seat Φ
 (0) No child safety seat
 (1) Infant seat
 (2) Toddler seat
 (3) Convertible seat
 (4) Booster seat - with shield
 (5) Booster seat - without shield
 (7) Other type child safety seat (specify):
 (8) Unknown child safety seat type
 (9) Unknown if child safety seat used

57. Child Safety Seat Orientation Φ Φ
 (00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing
 (02) Forward facing
 (08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing
 (12) Forward facing
 (18) Other orientation (specify):

(19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

(21) Rear facing
 (22) Forward facing
 (28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage Φ Φ

59. Child Safety Seat Shield Usage Φ Φ

60. Child Safety Seat Tether Usage Φ Φ

Note: Options below applicable to
 Variables OA58-OA60.

(00) No child safety seat

Not Designed With Harness/Shield/Tether

(01) After market harness/shield/tether
 added, not used
 (02) After market harness/shield/tether used
 (03) Child safety seat used, but no after market
 harness/shield/tether added
 (09) Unknown if harness/shield/tether
 added or used

Designed With Harness/Shield/Tether

(11) Harness/shield/tether not used
 (12) Harness/shield/tether used
 (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used
 (22) Harness/shield/tether used
 (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

Occupant Assessment Form

INJURY CONSEQUENCES61. Injury Severity (Police Rating) 3

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 3

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):

- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

(9) Unknown

64. Hospital Stay 99

- (00) Not Hospitalized
- _____ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 99

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

EMERGENCY RESPONSE INFORMATION

EMS Notification

- (1) Not notified
- (2) Notified
- (9) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS NotificationTime

(9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Arrival Time

- (9998) EMS cancelled or did not arrive
- (9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Departure Time To Treatment Facility

- (9997) EMS arrived, provided treatment, but did not transport
- (9998) EMS arrived, but was not used
- (9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Arrival Time At Treatment Facility

(9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Type

- (01) Fire department
- (02) Rescue squad
- (03) Police department
- (04) Trauma unit
- (05) Disaster unit
- (06) Ambulance service unit
- (07) Hospital
- (08) Mortuaries/funeral homes
- (98) Other, specify: _____
- (99) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Care (on scene or during transport)

- (01) No care administered
- (02) First aid
- (03) Resuscitation
- (04) CPR
- (05) Emergency cardiac care
- (06) Life support system monitoring (blood pressure, pulse rate, respiration, EKG)
- (07) Emergency burn care
- (08) Combination of above, specify: _____
- (98) Other, specify: _____
- (99) Unknown

ROAD VEHICLE

AIR VEHICLE

STOP WORK HERE VARIABLES 66-74 TO BE CODED BY THE ZONE CENTER

TO BE CODED BY THE ZONE CENTER**INJURY CONSEQUENCES****TRAUMA DATA**

66. Time to Death φ φ
 _____ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
 (00) Not fatal
 (96) Fatal - ruled disease
 (99) Unknown

67. 1st Medically Reported Cause of Death φ φ

68. 2nd Medically Reported Cause of Death φ φ

69. 3rd Medically Reported Cause of Death φ φ
 _____ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
 (00) Not fatal or no additional causes
 (96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) _____ Other result (includes fatal ruled disease) (specify):

(99) _____ Unknown

70. Number of Recorded Injuries for This Occupant 97
 _____ Code the actual number of injuries recorded for this occupant.
 (00) No recorded injuries
 (97) Injured, details unknown
 (99) Unknown if injured

71. Glasgow Coma Scale (GCS) Score 97
 (at Medical Facility)
 (00) Not injured
 (01) Injured - not treated at medical facility
 (02) No GCS Score at medical facility
 (03-15) Code the actual value of the initial GCS Score recorded at medical facility.
 (97) Injured, details unknown
 (99) Unknown if injured

72. Was the Occupant Given Blood? 9
 (1) No - blood not given
 (2) Yes - blood given
 (specify units): _____
 (9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO₃ 97
 (00) Not injured
 (01) Injured, ABGs not measured or reported
 (02-50) Code the actual value of the HCO₃
 (96) ABGs reported, HCO₃ unknown
 (97) Injured, details unknown
 (99) Unknown if injured

BELT USE DETERMINATION

74. Primary Source of Belt Use Determination 8
 (0) Not equipped/not available/destroyed or rendered inoperative
 (1) Vehicle inspection
 (2) Official injury data
 (3) Driver/occupant interview
 (8) Other (specify): PAC
 (9) Unknown if belt used

1997

Page 1

Summary of Results Using Damage

Task order 57 - Oldsmobile v. Ford

Speed Change
(ROLDMISS)

Vehicle #1

Total 22 km/h (14 mph)
 Longitudinal -22 km/h (-14 mph)
 Latitudinal 2 km/h (1 mph)
 PDOF Angle -5 °
 Energy Dissipated = 36848 Joules (27174 Ft-Lb)
 Barrier Equivalent Speed = 22.9 km/h (14.2 mph)
 Calculated using crush coefficients entered by the user.

Vehicle #2

Total 32 km/h (20 mph)
 Longitudinal -18 km/h (-11 mph)
 Latitudinal -26 km/h (-16 mph)
 PDOF Angle 55 °
 Energy Dissipated = 50343 Joules (37126 Ft-Lb)
 Barrier Equivalent Speed = 31.2 km/h (19.4 mph)
 Calculated using crush coefficients entered by the user.

General Information

	Vehicle #1	Vehicle #2
Year	1996	1987
Make	Oldsmobile	Ford
Model	Cutlass Supreme	Tempo
CDC	12FDEW2	MISSING
Side Damaged	F	R
PDOF Angle	-5 °	55 °
Heading Angle	0 °	120 °

Calculation method: Vehicle's Crush Coeff.

Vehicle's Crush Coeff.

d0 crush coeff.
 d1 crush coeff.

99.19 sqrt(N)
 6.47 sqrt(N)/cm

63.32 sqrt(N)
 8.02 sqrt(N)/cm

1997

Page 2

Damage Information

	Vehicle #1	Vehicle #2
	-----	-----
Vehicle Damage Known	Yes	No
Crush Length	140.0 cm (55 in)	0.0 cm (0 in)
C1	2.0 cm (1 in)	0.0 cm (0 in)
C2	9.0 cm (4 in)	0.0 cm (0 in)
C3	19.5 cm (8 in)	0.0 cm (0 in)
C4	29.5 cm (12 in)	0.0 cm (0 in)
C5	29.5 cm (12 in)	0.0 cm (0 in)
C6	13.0 cm (5 in)	0.0 cm (0 in)
D	13.0 cm (5 in)	0.0 cm (0 in)
D'	27.0 cm (11 in)	0.0 cm (0 in)

Vehicle Dimensions

	Vehicle #1	Vehicle #2
	-----	-----
Length	492.3 cm (194 in)	448.2 cm (176 in)
Width	182.7 cm (72 in)	173.4 cm (68 in)
Wheelbase	273.0 cm (107 in)	253.8 cm (100 in)
Weight	1649 kgs (3635 lbs)	1167 kgs (2573 lbs)
CG to Front of Veh	228.1 cm (90 in)	211.6 cm (83 in)
Engine Displacement	0.0 liters	2.3 liters
Moment of Inertia	361108 kgs (31962 lbs)	203806 kgs (18039 lbs)
Vehicle Mass	1649 kgs (9.5 lb-s ² /in)	1167 kgs (6.7 lb-s ² /in)

TO BE CODED BY THE ZONE CENTER**INJURY CONSEQUENCES****TRAUMA DATA**

66. Time to Death

0 0

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

67. 1st Medically Reported Cause of Death

0 0

68. 2nd Medically Reported Cause of Death

0 0

69. 3rd Medically Reported Cause of Death

0 0

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

70. Number of Recorded Injuries for This Occupant

9 7

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

COMPLAINT OF
PAIN
COMPLAINED OF
CHEST INJURIES,
PER
NARRATIVE

71. Glasgow Coma Scale (GCS) Score (at Medical Facility)

9 7

- (00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

72. Was the Occupant Given Blood?

9

- (1) No - blood not given
(2) Yes - blood given

(specify units):

- (9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO₃9 7

- (00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO₃
(96) ABGs reported, HCO₃ unknown
(97) Injured, details unknown
(99) Unknown if injured

BELT USE DETERMINATION

74. Primary Source of Belt Use Determination

1

- (0) Not equipped/not available/destroyed or rendered inoperative
(1) Vehicle inspection
(2) Official injury data
(3) Driver/occupant interview
(8) Other (specify):
(9) Unknown if belt used



OCCUPANT ASSESSMENT FORM

OCCUPANT'S SEATING

1. Primary Sampling Unit Number

2. Case Number - Stratum

AB 12

3. Vehicle Number

01

4. Occupant Number

02

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

04

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

2

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

112

Code actual height to the nearest centimeter.

(999) Unknown

44 inches X 2.54 = 112 centimeters

8. Occupant's Weight

017

Code actual weight to the nearest kilogram.

(999) Unknown

038 pounds X .4536 = 017 kilograms

9. Occupant's Role

2

(1) Driver

(2) Passenger

(9) Unknown

10. Occupant's Seat Position

13

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

8

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front of seat

(8) Other abnormal posture (specify):

TURNED TO (R)

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection

φ

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area

φ

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

14. Ejection Medium

φ

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

15. Medium Status (Immediately Prior To Impact)

φ

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment

φ

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.
(specify): _____
- (9) Unknown

17. Occupant Mobility

1

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or not oriented to time or place
- (2) Removed from vehicle due to perceived serious injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (8) Removed from vehicle for other reasons
(specify): _____
- (9) Unknown

BELT SYSTEM FUNCTION

<p>18. Manual (Active) Belt System Availability <u>4</u></p> <p>(0) None available (1) Belt removed/destroyed (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt available—type unknown</p> <p><i>Integral Belt Partially Destroyed</i> (6) Shoulder belt (lap belt destroyed/removed) (7) Lap belt (shoulder belt destroyed/removed) (8) Other belt (specify): _____ (9) Unknown _____</p>	<p>22. Manual Shoulder Belt Upper Anchorage Adjustment <u>3</u></p> <p>(0) No manual shoulder belt (1) No upper anchorage adjustment for manual shoulder belt</p> <p><i>Adjustable shoulder Belt Upper Anchorage</i> (2) In full up position (3) In mid position (4) In full down position (5) Position unknown (9) Unknown if position has adjustable upper anchorage adjustment</p>
<p>19. Manual (Active) Belt System Use <u>φ 4</u></p> <p>(00) None used, not available, or belt removed/destroyed (01) Inoperative (specify): _____ (02) Shoulder belt _____ (03) Lap belt _____ (04) Lap and shoulder belt _____ (05) Belt used—type unknown _____ (08) Other belt used (specify): _____</p> <p>(12) Shoulder belt used with child safety seat (13) Lap belt used with child safety seat (14) Lap and shoulder belt used with child safety seat (15) Belt used with child safety seat—type unknown (18) Other belt used with child safety seat (specify): _____ (99) Unknown if belt used _____</p>	<p>23. Automatic (Passive) Belt System Availability/Function <u>φ</u></p> <p>(0) Not equipped/not available (1) 2 point automatic belts (2) 3 point automatic belts (3) Automatic belts - type unknown</p> <p><i>Non-functional</i> (4) Automatic belts destroyed or rendered inoperative (9) Unknown</p> <p>24. Automatic (Passive) Belt System Use <u>φ</u></p> <p>(0) Not equipped/not available/destroyed or rendered inoperative (1) Automatic belt in use (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____ (3) Automatic belt use unknown (9) Unknown</p>
<p>20. Proper Use of Manual (Active) Belts <u>8</u></p> <p>(0) None used or not available (1) Belt used properly (2) Belt used properly with child safety seat</p> <p><i>Belt Used Improperly</i> (3) Shoulder belt worn under arm (4) Shoulder belt worn behind back or seat (5) Belt worn around more than one person (6) Lap belt worn on abdomen (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____ (8) Other improper use of manual belt system (specify): <u>LAP ONLY</u> (9) Unknown _____</p>	<p>25. Automatic (Passive) Belt System Type <u>φ</u></p> <p>(0) Not equipped/not available (1) Non-motorized system (2) Motorized system (9) Unknown</p> <p>26. Proper Use of Automatic (Passive) Belt System <u>φ</u></p> <p>(0) Not equipped/not available/not used (1) Automatic belt used properly (2) Automatic belt used properly with child safety seat</p> <p><i>Automatic Belt Used Improperly</i> (3) Automatic shoulder belt worn under arm (4) Automatic shoulder belt worn behind back (5) Automatic belt worn around more than one person (6) Lap portion of automatic belt worn on abdomen (7) Automatic lap and shoulder belt or</p>
<p>21. Manual (Active) Belt Failure Modes During Accident <u>1</u></p> <p>(0) No manual belt used or not available (1) No manual belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): _____ (6) Broken retractor (7) Combination of above (specify): _____ (8) Other manual belt failure (specify): _____ (9) Unknown _____</p>	<p>automatic shoulder belt used improperly with child safety seat (specify): _____</p> <p>(8) Other improper use of automatic belt system (specify): _____ (9) Unknown _____</p> <p>27. Automatic (Passive) Belt Failure Modes During Accident <u>φ</u></p> <p>(0) Not equipped/not available/not in use (1) No automatic belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): _____ (6) Broken retractor (7) Combination of above (specify): _____ (8) Other automatic belt failure (specify): _____ (9) Unknown _____</p>

POLICE REPORTED RESTRAINT USE

AIR BAG SYSTEM FUNCTION

28. Police Reported Belt Use 8

- (0) None used
- (1) Police did not indicate belt use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Automatic belt
- (8) Other type belt, (specify):

SHOULDER BELT / NOT USED

- (9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 1

- (0) No air bag available
- (1) Police did not indicate air bag availability/function
- (2) Deployed
- (3) Not deployed
- (4) Unknown if deployed
- (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [] Vehicle inspection
- [✓] Official injury data
- [] Driver/occupant interview
- [] Other (specify):

- [] Unknown if belt used

30. Frontal Air Bag System Availability/Function (This Occupant Position) 1

- (0) Not equipped/not available
- (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
- (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 1

- (0) Not equipped/not available
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) Φ

- (0) Not equipped/not available
- (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
- (9) Unknown

*Specify type of "other" air bag present:*33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) Φ

- (0) Not equipped with an "other" air bag
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 1

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):

- (9) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 9

- (0) Not equipped/not available
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)
(3) One previous accident with deployment
(4) More than one previous accident with at least one deployment
(8) Previous accidents, unknown deployment status
(9) Unknown

36. Type of Air Bag 1

- (0) Not equipped/not available
(1) Original manufacturer installed system
(2) Retrofitted air bag
(3) Replacement air bag
(8) Unknown type of air bag
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 9

- (0) Not equipped/not available
(1) No prior maintenance
(2) Yes, prior maintenance (specify):
(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 01

- (00) Not equipped/not available
Code the accident event sequence number that initiated the air bag deployment
(96) Deployed, unknown event
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

39. CDC For Air Bag Deployment Impact 1

- (0) Not equipped/not available
(1) Highest delta V
(2) Second highest delta V
(3) Other non-coded delta V (specify):
(6) Deployed, unknown event
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

40. Longitudinal Component of Delta V For Air Bag Deployment Impact + 0 0 2 2

- (_000) Not equipped/not available
Code the value of the delta V for the impact that initiated the air bag deployment
(_996) Deployment, unknown longitudinal Delta V
(_997) Not deployed
(_998) Unknown if deployed
(_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 2

- (0) Not equipped/not available
(1) No
(2) Yes
(3) Deployed, unknown if flap(s) opened at designated tear points
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 2

- (0) Not equipped/not available
(1) No
(2) Yes (specify): SCRATCHES FROM W/S
(3) Deployed, unknown if air bag module cover flap(s) damaged
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

43. Was There Damage To The Air Bag? 01

- (00) Not equipped/not available
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured
(03) Cut
(04) Torn
(05) Holed
(06) Burned
(07) Abraded
(88) Other damage (specify):
(95) Damaged, details unknown
(96) Deployed, unknown if damaged
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM
EVALUATION *continued*

HEAD RESTRAINT AND SEAT EVALUATION

44. Source of Air Bag Damage φ 1
 (00) Not equipped/not available
 (01) Not damaged
 (02) Object worn by occupant, (specify):
 (03) Object carried by occupant, (specify):
 (04) Adaptive/assistive controls, (specify):
 (05) Fire in vehicle
 (06) Thermal burns
 (07) Rescue or emergency efforts
 (88) Other damage source (specify):
 (95) Damaged, unknown source
 (96) Deployed, unknown if damaged
 (97) Not deployed
 (98) Unknown if deployed
 (99) Unknown
45. Was The Air Bag Tethered? 1
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of tether straps):
 (3) Deployed, unknown if tethered
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
46. Did The Air Bag Have Vent Ports? 2
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of vent ports):
 (3) Deployed, unknown if vent ports present
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 1
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify):
 (3) Deployed, unknown if other occupant contact to air bag
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? 1
 (0) Not air bag equipped/air bag not available
 (1) No
 (2) Eyeglasses/sunglasses
 (3) Contact lenses
 (4) Deployed, unknown if eyewear worn
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

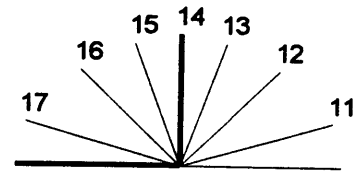
49. Head Restraint Type/Damage by Occupant at This Occupant Position 3
 (0) No head restraints
 (1) Integral—no damage
 (2) Integral—damaged during accident
 (3) Adjustable—no damage
 (4) Adjustable—damaged during accident
 (5) Add-on—no damage
 (6) Add-on—damaged during accident
 (8) Other (specify):
 (9) Unknown
50. Seat Type (this Occupant Position) φ1
 (00) Occupant not seated or no seat
 (01) Bucket
 (02) Bucket with folding back
 (03) Bench
 (04) Bench with separate back cushions
 (05) Bench with folding back(s)
 (06) Split bench with separate back cushions
 (07) Split bench with folding back(s)
 (08) Pedestal (i.e., column supported)
 (09) Box mounted seat (i.e., van type)
 (10) Other seat type (specify):
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1
 (0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 6
 (0) Occupant not seated or no seat
 (1) Non-adjustable seat track
- Adjustable Seat Track*
 (2) Seat at forward most track position
 (3) Seat between forward most and middle track positions
 (4) Seat at middle track position
 (5) Seat between middle and rear most track positions
 (6) Seat at rear most track position
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*

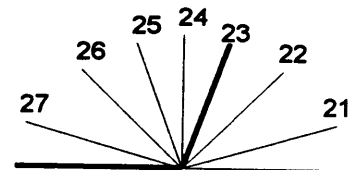
53. Seat Back Incline Prior and Post Impact 14
- (00) Occupant not seated or no seat
(01) Not adjustable

Upright prior to impact

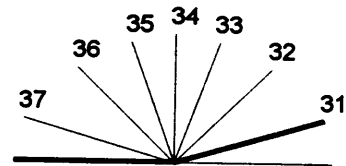
- (11) Moved to completely rearward position
(12) Moved to rearward midrange position
(13) Moved to slightly rearward position
(14) Retained pre-impact position
(15) Moved to slightly forward position
(16) Moved to forward midrange position
(17) Moved to completely forward position

***Slightly reclined prior to impact***

- (21) Moved to completely rearward position
(22) Moved to rearward midrange position
(23) Retained pre-impact position
(24) Moved to upright position
(25) Moved to slightly forward position
(26) Moved to forward midrange position
(27) Moved to completely forward position

***Completely reclined prior to impact***

- (31) Retained pre-impact position
(32) Moved to rearward midrange position
(33) Moved to slightly rearward position
(34) Moved to upright position
(35) Moved to slightly forward position
(36) Moved to forward midrange position
(37) Moved to completely forward position
(99) Unknown



54. Seat Performance (this Occupant Position) 1

- (0) Occupant not seated or no seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks or "seat back" failed
(specify): _____
(4) Seat track/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion,
(specify): _____
(7) Combination of above (specify): _____
(8) Other (specify): _____
(9) Unknown

CHILD SAFETY SEAT

55. Child Safety Seat Make/Model φ φ φ

(000) No child safety seat

Applicable codes are found in your NASS CDS
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat φ

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation φ φ

(00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage φ φ59. Child Safety Seat Shield Usage φ φ60. Child Safety Seat Tether Usage φ φNote: Options below applicable to
Variables OA58-OA60.

(00) No child safety seat

Not Designed With Harness/Shield/Tether(01) After market harness/shield/tether
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market
harness/shield/tether added(09) Unknown if harness/shield/tether
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES**61. Injury Severity (Police Rating)**4

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality1

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):

- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment)2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

(9) Unknown

64. Hospital Stay49

(00) Not Hospitalized

Code the number of days (up through 60) that the occupant stayed in hospital.

- (61) 61 days or more
- (99) Unknown

65. Working Days Lost62

Code the number of days (up through 60) that the occupant lost from work due to the accident

- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

EMERGENCY RESPONSE INFORMATION**EMS Notification**

- (1) Not notified
- (2) Notified
- (9) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Notification Time

(9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Arrival Time

- (9998) EMS cancelled or did not arrive
- (9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Departure Time To Treatment Facility

- (9997) EMS arrived, provided treatment, but did not transport
- (9998) EMS arrived, but was not used
- (9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Arrival Time At Treatment Facility

(9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Type

- (01) Fire department
- (02) Rescue squad
- (03) Police department
- (04) Trauma unit
- (05) Disaster unit
- (06) Ambulance service unit
- (07) Hospital
- (08) Mortuaries/funeral homes
- (98) Other, specify: _____
- (99) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Care (on scene or during transport)

- (01) No care administered
- (02) First aid
- (03) Resuscitation
- (04) CPR
- (05) Emergency cardiac care
- (06) Life support system monitoring (blood pressure, pulse rate, respiration, EKG)
- (07) Emergency burn care
- (08) Combination of above, specify: _____
- (98) Other, specify: _____
- (99) Unknown

ROAD VEHICLE

AIR VEHICLE

STOP WORK HERE VARIABLES 66-74 TO BE CODED BY THE ZONE CENTER

TO BE CODED BY THE ZONE CENTER**INJURY CONSEQUENCES**

66. Time to Death 43
 _____ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
 (96) Fatal - ruled disease
 (99) Unknown

67. 1st Medically Reported Cause of Death 41

68. 2nd Medically Reported Cause of Death 42

69. 3rd Medically Reported Cause of Death 43

_____ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
 (96) Mode of death given but specific injuries are not linked to cause of death. (specify): _____

(97) Other result (includes fatal ruled disease) (specify): _____

(99) Unknown _____

70. Number of Recorded Injuries for This Occupant 32

_____ Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
 (97) Injured, details unknown
 (99) Unknown if injured

TRAUMA DATA

71. Glasgow Coma Scale (GCS) Score 42
 (at Medical Facility)

- (00) Not injured
 (01) Injured - not treated at medical facility
 (02) No GCS Score at medical facility
 (03-15) Code the actual value of the initial GCS Score recorded at medical facility.
 (97) Injured, details unknown
 (99) Unknown if injured

72. Was the Occupant Given Blood? 9

- (1) No - blood not given
 (2) Yes - blood given
 (specify units): _____
 (9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO₃ 41

- (00) Not injured
 (01) Injured, ABGs not measured or reported
 (02-50) Code the actual value of the HCO₃
 (96) ABGs reported, HCO₃ unknown
 (97) Injured, details unknown
 (99) Unknown if injured

BELT USE DETERMINATION

74. Primary Source of Belt Use Determination 2

- (0) Not equipped/not available/destroyed or rendered inoperative
 (1) Vehicle inspection
 (2) Official injury data
 (3) Driver/occupant interview
 (8) Other (specify): _____
 (9) Unknown if belt used



U.S. Department of Transportation
National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

4. Occupant Number

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	Body Region	Type of Anatomic Structure	A.I.S. - 90 Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
1st	5. <u>1</u>	6. <u>4</u>	7. <u>4</u>	8. <u>1 4</u>	9. <u>0 2</u>	10. <u>3</u>	11. <u>2</u>	12. <u>18 0</u>	13. <u>2</u>	14. <u>1</u>	15. <u>0 0</u>
2nd	16. <u>1</u>	17. <u>4</u>	18. <u>5</u>	19. <u>0 2</u>	20. <u>3 0</u>	21. <u>3</u>	22. <u>2</u>	23. <u>18 9</u>	24. <u>2</u>	25. <u>1</u>	26. <u>0 0</u>
3rd	27. <u>1</u>	28. <u>1</u>	29. <u>4</u>	30. <u>0 6</u>	31. <u>5 4</u>	32. <u>3</u>	33. <u>9</u>	34. <u>18 0</u>	35. <u>2</u>	36. <u>1</u>	37. <u>0 0</u>
4th	38. <u>1</u>	39. <u>1</u>	40. <u>4</u>	41. <u>0 6</u>	42. <u>2 0</u>	43. <u>3</u>	44. <u>0</u>	45. <u>18 0</u>	46. <u>2</u>	47. <u>1</u>	48. <u>0 0</u>
5th	49. <u>1</u>	50. <u>5</u>	51. <u>4</u>	52. <u>4 2</u>	53. <u>2 0</u>	54. <u>2</u>	55. <u>2</u>	56. <u>15 2</u>	57. <u>2</u>	58. <u>1</u>	59. <u>0 0</u>
6th	60. <u>1</u>	61. <u>5</u>	62. <u>4</u>	63. <u>1 8</u>	64. <u>2 2</u>	65. <u>2</u>	66. <u>1</u>	67. <u>15 2</u>	68. <u>2</u>	69. <u>1</u>	70. <u>0 0</u>
7th	71. <u>1</u>	72. <u>4</u>	73. <u>9</u>	74. <u>0 4</u>	75. <u>0 2</u>	76. <u>1</u>	77. <u>1</u>	78. <u>6 9 7</u>	79. <u>9</u>	80. <u>7</u>	81. <u>0 0</u>
8th	82. <u>1</u>	83. <u>4</u>	84. <u>9</u>	85. <u>0 4</u>	86. <u>0 2</u>	87. <u>1</u>	88. <u>2</u>	89. <u>0 9 7</u>	90. <u>9</u>	91. <u>7</u>	92. <u>0 0</u>
9th	93. <u>1</u>	94. <u>6</u>	95. <u>5</u>	96. <u>0 2</u>	97. <u>0 4</u>	98. <u>2</u>	99. <u>6</u>	100. <u>18 0</u>	101. <u>2</u>	102. <u>1</u>	103. <u>0 0</u>
10th	104. <u>1</u>	105. <u>3</u>	106. <u>9</u>	107. <u>0 2</u>	108. <u>0 2</u>	109. <u>1</u>	110. <u>5</u>	111. <u>18 0</u>	112. <u>2</u>	113. <u>1</u>	114. <u>0 0</u>

.I.S. - 90

	Source of Injury Data	A.I.S. - 90						Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
		Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect				
26 17th	<u>1</u>	<u>2</u>	<u>1</u>	<u>Φ 2</u>	<u>Φ 2</u>	<u>1</u>	<u>1</u>	<u>697</u>	<u>9</u>	<u>7</u>	<u>Φ Φ</u>
27 18th	<u>1</u>	<u>7</u>	<u>9</u>	<u>Φ 4</u>	<u>Φ 2</u>	<u>1</u>	<u>1</u>	<u>697</u>	<u>9</u>	<u>7</u>	<u>Φ Φ</u>
28 19th	<u>1</u>	<u>7</u>	<u>9</u>	<u>Φ 4</u>	<u>Φ 2</u>	<u>1</u>	<u>1</u>	<u>697</u>	<u>9</u>	<u>7</u>	<u>Φ Φ</u>
29 14th	<u>1</u>	<u>7</u>	<u>9</u>	<u>Φ 4</u>	<u>Φ 2</u>	<u>1</u>	<u>1</u>	<u>697</u>	<u>9</u>	<u>7</u>	<u>Φ Φ</u>
30 15th	<u>1</u>	<u>7</u>	<u>9</u>	<u>Φ 4</u>	<u>Φ 2</u>	<u>1</u>	<u>2</u>	<u>185</u>	<u>1</u>	<u>1</u>	<u>Φ Φ</u>
31 16th	<u>1</u>	<u>7</u>	<u>9</u>	<u>Φ 2</u>	<u>Φ 2</u>	<u>1</u>	<u>2</u>	<u>Φ Φ 1</u>	<u>1</u>	<u>1</u>	<u>4 Φ</u>
32 17th	<u>1</u>	<u>7</u>	<u>9</u>	<u>Φ 6</u>	<u>Φ Φ</u>	<u>1</u>	<u>2</u>	<u>Φ Φ 1</u>	<u>1</u>	<u>1</u>	<u>4 Φ</u>
18th	—	—	—	—	—	—	—	—	—	—	—
19th	—	—	—	—	—	—	—	—	—	—	—
20th	—	—	—	—	—	—	—	—	—	—	—
21st	—	—	—	—	—	—	—	—	—	—	—
22nd	—	—	—	—	—	—	—	—	—	—	—
23rd	—	—	—	—	—	—	—	—	—	—	—
24th	—	—	—	—	—	—	—	—	—	—	—
25th	—	—	—	—	—	—	—	—	—	—	—

OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
(2) Face			(2) Left
(3) Neck	<u>Vessels, Nerves, Organs.</u>		(3) Bilateral
(4) Thorax	<u>Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.		(4) Central
(5) Abdomen.		To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity	The exceptions to this rule apply to:		(7) Superior
(8) Lower Extremity			(8) Inferior
(9) Unspecified			(9) Unknown
			(0) Whole region
Type of Anatomic Structure	<u>Whole Area</u>		
(1) Whole Area	(02) Skin - Abrasion		
(2) Vessels	(04) Skin - Contusion		
(3) Nerves	(06) Skin - Laceration		
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion		
(5) Skeletal (includes joints)	(10) Amputation		
(6) Head - LOC	(20) Burn		
(9) Skin	(30) Crush		
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		
		Abbreviated Injury Scale	
		(1) Minor Injury	
		(2) Moderate Injury	
		(3) Serious Injury	
		(4) Severe Injury	
		(5) Critical Injury	
		(6) Maximum (untreatable)	
		(7) Injured, unknown severity	
SOURCE OF INJURY DATA	INJURY SOURCE CONFIDENCE LEVEL	DIRECT/INDIRECT INJURY	
<u>OFFICIAL RECORDS</u>			
(1) Autopsy records with or without hospital/medical records	(1) Certain	(1) Direct contact injury	
(2) Hospital/medical records other than emergency room (e.g., discharge summary)	(2) Probable	(2) Indirect contact injury	
(3) Emergency room records only (including associated X-rays or other lab reports)	(3) Possible	(3) Noncontact injury	
(4) Private physician, walk-in or emergency clinic	(9) Unknown	(7) Injured, unknown source	
<u>UNOFFICIAL RECORDS</u>			
(5) Lay coroner report			
(6) E.M.S. personnel			
(7) Interviewee			
(8) Other source (specify):			
(9) Police			

REPORT OF FINDINGS

Decedent : [REDACTED]
OMI # : [REDACTED]
Date report issued : [REDACTED]
Place pronounced : [REDACTED]
County pronounced : [REDACTED]
Date of Birth : [REDACTED]
Date death pronounced : [REDACTED]
Time death pronounced : [REDACTED]

Cause of Death : Multiple injuries

Manner of Death : Accident

Date of Injury : [REDACTED]
Place of Injury : Street
Location of Injury : [REDACTED]
How Injury Occurred: Passenger of auto in collision with auto

Autopsy performed by : [REDACTED]

Death Certificate signed by : [REDACTED]
Deputy Medical Investigator : [REDACTED]

District Attorney : [REDACTED]
Law Enforcement Agency/Agent : [REDACTED]
Hospital : [REDACTED]
Other Agency : [REDACTED]

For details concerning this death, contact the law enforcement agency listed, records section.

For copies of the Death Certificate, contact the [REDACTED]

Appropriate investigative reports are available from the [REDACTED]
as required by law. Fees are assessed where required. A review of the
reports in the [REDACTED] of the Office of the [REDACTED]
is available upon request.

All requests for reports are to be directed to:
[REDACTED]
[REDACTED]

AGE: 4 SEX: Fem RACE: Neg DOB:

SPECIMEN:

Received by:

Date:

All specimens taken during autopsy unless otherwise noted

2 Other ABDOMINAL CAVITY 1 Urine

2 Vitreous

EXAMINATION REQUESTED:

X Alcohol

X Drugs of Abuse

RESULTS:

Alcohol, ABDOMINAL CAVITY, GLC;

ETHANOL : None detected (Detection limit for Ethanol is 0.005%)

Drugs of Abuse, Urine , EMIT;

Drugs of Abuse : None detected

x Final Report

Laboratory No.

REQUESTED BY:

REVIEWED:

TOXICOLOGIST:

DATE:

POSTMORTEM EXAMINATION

An autopsy is performed on a body identified as _____ at the Office of the _____

EXTERNAL EXAMINATION

The body is that of a well developed, well nourished, Black, female child, who weighs 38 pounds, is 44 inches in length, and appears compatible with the stated age of 4 years. There are identification bands around the right wrist, right ankle, and left ankle.

The body is received unclad, accompanied by:

1. A pink, blue, and green patterned sweater;
2. A pair of blue jeans;
3. Two blue and purple socks;
4. One gray snow boot.

The sweater is previously cut, consistent with emergency medical intervention.

The body is cool. Rigor mortis is fully fixed. Fixed purple livor mortis extends over the posterior surfaces of the body, except in areas exposed to pressure.

The scalp hair is black, curly, and measures 1 1/2 inches in length over the crown. The irides are brown. The pupils are bilaterally equal at 0.5 cm. The cornea are translucent. The sclerae show several purple-black areas of discoloration. There are a few scattered petechiae on the bulbar and palpebral conjunctivae of the lower eyelids. The nose and ears are not unusual. The teeth are natural and in good repair, with the exception of listed injuries. The neck is apparently more mobile than normal in the high cervical area.

The thorax is well developed and symmetrical. The abdomen is flat. The anus and back are unremarkable.

The breasts are not developed, consistent with the decedent's age. The genitalia are those of a normal female child.

The upper and lower extremities are well developed and symmetrical, without absence of digits.

Identifying marks and scars include:

1. A 1 1/8 x 1/16 inch white-tan linear scar on the right lateral proximal forearm;
2. A 1 1/2 x 1/16 inch white linear scar on the right dorsal hand;
3. A 3/8 x 1/4 inch white-tan oval scar on the right lower medial back;
4. A 1/2 x 1/8 inch tan linear scar on the medial proximal right lower leg;
5. A 1/4 x 1/4 inch white-tan round scar on the left knee;
6. A 3/8 x 1/8 inch linear tan scar on the medial proximal left

lower leg.

Evidence of medical intervention includes :

1. A nasogastric tube in the left naris;
2. An endotracheal tube;
3. A Foley catheter;
4. Intravascular catheters in the antecubital fossae;
5. Electrocardiograph pads over the left chest, right chest, and left lower abdomen and flank.


EVIDENCE OF INJURY

HEAD AND NECK: On the right posterior parietal scalp is a 7/8 x 7/8 inch red abrasion. On the left forehead is a 3/8 x 1/4 inch oval dried red-purple abrasion. On the left temple lateral to the eyebrow is a 1/2 x 3/8 inch oval dried red-tan abrasion. Below the inferior attachment of the left ear is a 3/8 x 1/4 inch oval dried red tan abrasion. On the superior portion of the left ear is a 3/8 x 1/8 inch red-tan dried abrasion. On the left posterior ear is a 1 7/8 x 1/2 inch dried red-tan abrasion. Posterior to the left ear is a 5/8 x 1/4 inch dried red-tan oval abrasion. On the left cheek and jaw is a 2 1/2 x 1 1/2 inch red-tan dried abrasion. Surrounding the right eye is a blue-green contusion. Lateral to the right eye is a 3/4 x 1/4 inch linear dried red-purple abrasion. On the under surface of the chin is a 3/4 x 1/4 inch red-tan dried abrasion. On the mid neck in the midline is a 1 x 1/2 inch discontinuous linear horizontal red-tan dried abrasion. On the mucosal surface of the left lower lip is a 3/4 x 1/4 inch laceration with surrounding red-purple hemorrhage. The lower lip frenulum is lacerated, with surrounding hemorrhage. On the tip of the tongue on the right side is a 1/2 x 1/8 inch irregular laceration. On the left posterior portion of the tongue is a 1/2 x 1/8 inch irregular laceration. The mandible is fractured, with several loose lower teeth and a fractured lower incisor.

Internally, in the subcutaneous tissue of the scalp underlying the abrasion on the right posterior parietal region, is a 2 x 1 cm. contusion. A thin layer of liquid blood is present in the right and left subdural space over the convexities. Subarachnoid hemorrhage is present primarily over the frontal lobes and around the base of the brain and brain stem. There are several areas of paramidline cortical contusion over the anterior frontal lobes bilaterally. A moderate amount of soft tissue hemorrhage is present at the atlantoaxial joint without evident fracture. The joint itself is slightly loose. Mild anterior distraction of the intervertebral disk at the C2-C3 level is present. ✓

THORAX AND ABDOMEN: On the upper thorax, both right and left, are faint scattered purple-red contusions. On the left lateral abdomen and flank, extending onto the left back, is a 5 1/4 x 3/4 inch red, purple, and tan near horizontal abrasion. ✓

Internally are posteromedial fractures of the left 3rd-7th and left 10th ribs, with associated soft tissue hemorrhage. On the posterior left lung upper lobe is a 3 x 5 cm. contusion. In the soft tissues of the anterior and posterior mediastinum including the thymus and in the left supraclavicular area are moderate amounts of hemorrhage. The splenic capsule and parenchyma are disrupted by numerous irregular lacerations. On 4

the posterior lateral edge of the right lobe of the liver is a 0.5 cm. laceration. A moderate amount of hemorrhage is within the falciform ligament. The abdominal cavity contains 400 ml. of liquid blood. 

UPPER EXTREMITIES: On the posterior proximal left forearm is a 4 1/4 x 2 inch purple contusion. On the left hand are multiple small red-purple abrasions and small lacerations measuring up to 1/8 inch. On the anterior proximal right forearm is a 1 1/8 x 5/8 inch red-purple contusion. On the right distal medial forearm is a 1/2 inch round red-purple contusion. On the right medial wrist is a 1/2 inch round red-purple contusion.

INTERNAL EXAMINATION

BODY CAVITIES: No adhesions are in any of the body cavities. Twenty (20) ml. of serosanguineous fluid are in the right pleural cavity. Fifteen (15) ml. of serosanguineous fluid are in the left pleural cavity. The abdominal cavity contains the previously mentioned blood. All body organs are present in normal and anatomic position.

HEAD (CENTRAL NERVOUS SYSTEM): The brain weighs 1,070 grams. The dura mater and falx cerebri are intact, and the leptomeninges are thin and delicate, with the previously described abnormalities. The cerebral hemispheres are symmetrical. The structures at the base of the brain, including cranial nerves and blood vessels, are intact and free of abnormality. Sections through the cerebral hemispheres reveal small cortical hemorrhages in the previously noted contused regions. No other lesions are identified within the cortex, subcortical white matter, or deep parenchyma of either hemisphere. The cerebral ventricles are of normal caliber. Sections through the brain stem and cerebellum are unremarkable. The cervical spinal cord is examined. No abnormalities are visible.

NECK: Examination of the soft tissues of the neck, including strap muscles and large vessels, reveals no abnormalities, with the exception of the previously described soft tissue hemorrhage. The hyoid bone and larynx are intact. The tongue is normal, aside from the previously described lacerations.

CARDIOVASCULAR SYSTEM: The heart weighs 55 grams. The pericardial surfaces are smooth, glistening, and unremarkable. The pericardial sac is free of significant fluid or adhesions. The coronary arteries arise normally and follow the usual distribution of a left dominant pattern with no significant atherosclerotic stenoses. The chambers and valves exhibit the usual size/position relationship and are unremarkable. The myocardium is dark red-brown, firm, and unremarkable; the atrial and ventricular septa are intact. The aorta and its major branches arise normally and follow the usual course, with no significant atherosclerosis or laceration. The foramen ovale is membrane closed. The vena cava and its major tributaries return to the heart in the usual distribution and are unremarkable.

RESPIRATORY SYSTEM: The right and left lungs weigh 150 and 135 grams, respectively. The upper and lower airways are patent, and the mucosal surfaces are smooth, yellow-tan, and unremarkable. The pleural surfaces are smooth, glistening, and unremarkable, aside from the previously described contusion. The pulmonary parenchyma is dark red-purple and exudes slight to moderate amounts of blood and frothy fluid. The pulmonary

arteries are normally developed and patent.

LIVER AND BILIARY SYSTEM: The liver weighs 450 grams. The hepatic capsule is smooth, glistening, and intact, covering red-brown parenchyma. There is a small laceration, as noted. The gallbladder contains viscid bile. The extrahepatic biliary tree is patent.

ALIMENTARY TRACT: The esophagus is lined by gray-white, smooth mucosa. The gastric mucosa is arranged in the usual rugal folds, and the lumen contains a large amount of thick green material and partially digested food fragments. The small and large bowel are unremarkable. The appendix is present. The colon contains unformed stool. The mesentery, including the root and blood vessels, is intact without disruption. There are numerous appropriately enlarged mesenteric lymph nodes. The pancreas has a normal, gray-white, lobulated appearance, and the ducts are clear.

GENITOURINARY TRACT: The right and left kidneys weigh 30 grams each. The renal capsules are smooth, thin, semitransparent, and strip with ease from the underlying smooth, red-brown, firm, cortical surfaces. The cortices are sharply delineated from the medullary pyramids. The calyces, pelves, and ureters are unremarkable. The urinary bladder contains no urine; the mucosa is gray-tan and smooth. The uterus, Fallopian tubes, ovaries, and vagina are unremarkable.

RETICULOENDOTHELIAL SYSTEM: The spleen weighs 50 grams with the previously described capsular and parenchymal lacerations. The splenic lymphoid follicles are unremarkable. The regional lymph nodes appear normal.

ENDOCRINE SYSTEM: The pituitary, thyroid, and adrenal glands are unremarkable.

MUSCULOSKELETAL SYSTEM: The bony framework, supporting musculature, and soft tissues are not unusual, with the exception of the previously described injuries.

MICROSCOPIC NOTES

BRAIN: Sections of the temporal and frontal cortex show acute subarachnoid hemorrhage and several small areas of intraparenchymal perivascular acute hemorrhage consistent with contusions. Sections of the pons show focal acute intraparenchymal hemorrhage in the posterior aspect and acute subarachnoid hemorrhage. Sections of the cerebellum show acute subarachnoid hemorrhage. Sections of the spinal cord are unremarkable with no evidence of hemorrhage, laceration, or contusion. 4

HEART: There is an irregular loose grouping of lymphocytes in the right ventricle myocardium, with associated interstitial edema. Myocyte necrosis is not seen. Otherwise, sections show normal myocytes without inflammation, hypertrophy, hemorrhage, or other abnormality.

LUNGS: Sections show normal alveoli, bronchioles, and blood vessels with broad zones of acute intra-alveolar, septal, and subpleural hemorrhage. Small benign lymphoid aggregates are present.

KIDNEYS: Sections show unremarkable glomeruli, tubules, interstitium, and blood vessels. Acute hemorrhage is present in the renal pelvis and perinephric fat.

LIVER: Sections of the liver show unremarkable hepatic cords, sinusoids, and portal triads without inflammation, masses, or fibrosis.

SPLEEN: Sections show the usual architecture of red and white pulp with large areas of acute intraparenchymal hemorrhage.

THYROID: Sections show variably-sized follicles without abnormality.

THYMUS: Sections show the usual architecture of thymic cortex and medulla with focal acute parenchymal hemorrhage.

ADRENALS: Sections show an unremarkable cortex and medulla without abnormality.

PANCREAS: Sections show unremarkable acini and islets without abnormality.

OVARY: Sections show a normal cortex with numerous follicles for age.

LYMPH NODE: Sections show the usual architecture with prominent lymphoid follicles.

PATHOLOGIC DIAGNOSES

- I. Blunt trauma, head and neck
 - A. Multiple abrasions and contusions of head and neck
 - B. Mandible fracture, with lacerations of lower lip and lower frenulum
 - C. Soft tissue hemorrhage of cervical spine, C1-C2
 - D. Extension injury of cervical spine, C2-C3
 - E. Subdural and subarachnoid hemorrhage
 - F. Acute cerebral and pontine contusions
- II. Blunt trauma, thorax and abdomen
 - A. Contusions and abrasions over thorax and left lower trunk
 - B. Multiple left rib fractures
 - C. Left lung contusion
 - D. Mediastinal soft tissue hemorrhage
 - E. Multiple lacerations of spleen, with hemoperitoneum (400 ml.)
 - F. Liver laceration
 - G. Hemorrhage into falciform ligament
- III. Multiple contusions and abrasions of upper extremities

OPINION

This 4 year old female child, died of multiple blunt trauma injuries sustained in a motor vehicle collision. She was reportedly the right front seat passenger. The decedent was unresponsive at the scene and transported to a regional medical center where she was diagnosed with closed head injuries. She was airlifted to another regional medical center and pronounced dead shortly after arrival.

The airbags in the decedent's vehicle reportedly deployed. There is conflicting historical and investigative information regarding seatbelt use by the decedent.

Autopsy revealed multiple blunt trauma injuries including bruising of the brain (cerebral contusions) with bleeding around the brain (subarachnoid and subdural hemorrhage), a broken jaw, neck injuries, broken left ribs and left lung bruise, and splenic and liver lacerations with abundant internal bleeding. Multiple scrapes (abrasions) and bruises (contusions) of the scalp, face, neck, trunk, and arms were also identified.

Cutaneous blunt force injuries (abrasions) of the neck and lower left trunk are consistent with shoulder and lap belts around the decedent, perhaps with the left hip facing somewhat forward. Other cutaneous blunt force injuries of the face, chest, and arms (abrasions, contusions, and lacerations) are consistent with impact with an object or objects in the motor vehicle such as an air bag. Extensive abdominal and chest injuries are likely associated with seat belts, if worn, while other internal (head) injuries may be associated with impact with the air bag or other internal surfaces of the car.

The manner of death is accident.



OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number _____

2. Case Number - Stratum AB 12

3. Vehicle Number 01

4. Occupant Number 03

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 07

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex 2

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height 999

Code actual height to the nearest
centimeter.

(999) Unknown

_____ inches X 2.54 = _____ centimeters

8. Occupant's Weight 999

Code actual weight to the nearest
kilogram.

(999) Unknown

_____ pounds X .4536 = _____ kilograms

9. Occupant's Role 2

(1) Driver

(2) Passenger

(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position 13

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify): _____

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify): _____

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify): _____

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify): _____

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify): _____

(99) Unknown

11. Occupant's Posture 0

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front
of seat

(8) Other abnormal posture (specify): _____

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection

φ

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area

φ

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

14. Ejection Medium

φ

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

15. Medium Status (Immediately Prior To Impact)

φ

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment

φ

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.
(specify): _____
- (9) Unknown

17. Occupant Mobility

4

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or not oriented to time or place
- (2) Removed from vehicle due to perceived serious injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (8) Removed from vehicle for other reasons
(specify): _____
- (9) Unknown

BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown19. Manual (Active) Belt System Use 4 4

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify):

*Police indicate
"SHOULDER
HARNESSES-USED"*

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts 1

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):(9) Unknown21. Manual (Active) Belt Failure Modes During Accident 1

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):

(8) Other manual belt failure (specify):(9) Unknown22. Manual Shoulder Belt Upper Anchorage Adjustment 1

- (0) No manual shoulder belt
- (1) No upper anchorage adjustment for manual shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function φ

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use φ

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type φ

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System φ

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or

automatic shoulder belt used improperly with child safety seat (specify):

- (8) Other improper use of automatic belt system (specify):
- (9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident φ

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify):

(9) Unknown

POLICE REPORTED RESTRAINT USE

AIR BAG SYSTEM FUNCTION

28. Police Reported Belt Use 2

- (0) None used
- (1) Police did not indicate belt use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Automatic belt
- (8) Other type belt, (specify):

(9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function φ

- (0) No air bag available
- (1) Police did not indicate air bag availability/function
- (2) Deployed
- (3) Not deployed
- (4) Unknown if deployed
- (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [☒] Vehicle inspection
- [☐] Official injury data
- [☐] Driver/occupant interview
- [☐] Other (specify):

[☐] Unknown if belt used

30. Frontal Air Bag System Availability/Function (This Occupant Position) φ

- (0) Not equipped/not available
- (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
- (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) φ

- (0) Not equipped/not available
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) φ

- (0) Not equipped/not available
- (1) Air bag

Non-functional

- (2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
- (9) Unknown

Specify type of "other" air bag present:

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) φ

- (0) Not equipped with an "other" air bag
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) φ

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):

(9) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? φ

(0) Not equipped/not available

(1) No previous accidents

Yes

(2) Previous accident(s) without deployment(s)

(3) One previous accident with deployment

(4) More than one previous accident with at least one deployment

(8) Previous accidents, unknown deployment status

(9) Unknown

36. Type of Air Bag φ

(0) Not equipped/not available

(1) Original manufacturer installed system

(2) Retrofitted air bag

(3) Replacement air bag

(8) Unknown type of air bag

(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? φ

(0) Not equipped/not available

(1) No prior maintenance

(2) Yes, prior maintenance (specify):

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number φ φ

(00) Not equipped/not available

Code the accident event sequence number that initiated the air bag deployment

(96) Deployed, unknown event

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

39. CDC For Air Bag Deployment Impact φ

(0) Not equipped/not available

(1) Highest delta V

(2) Second highest delta V

(3) Other non-coded delta V (specify):

(6) Deployed, unknown event

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

40. Longitudinal Component of Delta V For Air Bag +Deployment Impact - φ φ φ

(_000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

(_996) Deployment, unknown longitudinal Delta V

(_997) Not deployed

(_998) Unknown if deployed

(_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? φ

(0) Not equipped/not available

(1) No

(2) Yes

(3) Deployed, unknown if flap(s) opened at designated tear points

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? φ

(0) Not equipped/not available

(1) No

(2) Yes (specify):

(3) Deployed, unknown if air bag module cover flap(s) damaged

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

43. Was There Damage To The Air Bag? φ φ

(00) Not equipped/not available

(01) Not damaged

Yes - Air Bag Damage

(02) Ruptured

(03) Cut

(04) Torn

(05) Holed

(06) Burned

(07) Abraded

(88) Other damage (specify):

(95) Damaged, details unknown

(96) Deployed, unknown if damaged

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM
EVALUATION** *continued***HEAD RESTRAINT AND SEAT EVALUATION**

44. Source of Air Bag Damage φ φ
 (00) Not equipped/not available
 (01) Not damaged
 (02) Object worn by occupant, (specify):
 (03) Object carried by occupant, (specify):
 (04) Adaptive/assistive controls, (specify):
 (05) Fire in vehicle
 (06) Thermal burns
 (07) Rescue or emergency efforts
 (08) Other damage source (specify):
 (95) Damaged, unknown source
 (96) Deployed, unknown if damaged
 (97) Not deployed
 (98) Unknown if deployed
 (99) Unknown
45. Was The Air Bag Tethered? φ
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of tether straps):
 (3) Deployed, unknown if tethered
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
46. Did The Air Bag Have Vent Ports? φ
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of vent ports):
 (3) Deployed, unknown if vent ports present
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? φ
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify):
 (3) Deployed, unknown if other occupant contact to air bag
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? φ
 (0) Not air bag equipped/air bag not available
 (1) No
 (2) Eyeglasses/sunglasses
 (3) Contact lenses
 (4) Deployed, unknown if eyewear worn
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

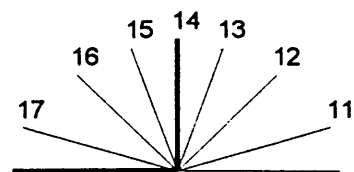
49. Head Restraint Type/Damage by Occupant at This Occupant Position φ
 (0) No head restraints
 (1) Integral—no damage
 (2) Integral—damaged during accident
 (3) Adjustable—no damage
 (4) Adjustable—damaged during accident
 (5) Add-on—no damage
 (6) Add-on—damaged during accident
 (8) Other (specify):
 (9) Unknown
50. Seat Type (this Occupant Position) φ 3
 (00) Occupant not seated or no seat
 (01) Bucket
 (02) Bucket with folding back
 (03) Bench
 (04) Bench with separate back cushions
 (05) Bench with folding back(s)
 (06) Split bench with separate back cushions
 (07) Split bench with folding back(s)
 (08) Pedestal (i.e., column supported)
 (09) Box mounted seat (i.e., van type)
 (10) Other seat type (specify):
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1
 (0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 1
 (0) Occupant not seated or no seat
 (1) Non-adjustable seat track
Adjustable Seat Track
 (2) Seat at forward most track position
 (3) Seat between forward most and middle track positions
 (4) Seat at middle track position
 (5) Seat between middle and rear most track positions
 (6) Seat at rear most track position
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*

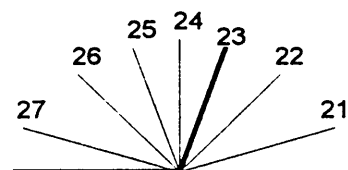
53. Seat Back Incline Prior and Post Impact Φ 1
 (00) Occupant not seated or no seat
 (01) Not adjustable

Upright prior to impact

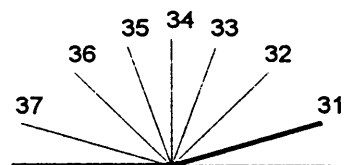
- (11) Moved to completely rearward position
 (12) Moved to rearward midrange position
 (13) Moved to slightly rearward position
 (14) Retained pre-impact position
 (15) Moved to slightly forward position
 (16) Moved to forward midrange position
 (17) Moved to completely forward position

***Slightly reclined prior to impact***

- (21) Moved to completely rearward position
 (22) Moved to rearward midrange position
 (23) Retained pre-impact position
 (24) Moved to upright position
 (25) Moved to slightly forward position
 (26) Moved to forward midrange position
 (27) Moved to completely forward position

***Completely reclined prior to impact***

- (31) Retained pre-impact position
 (32) Moved to rearward midrange position
 (33) Moved to slightly rearward position
 (34) Moved to upright position
 (35) Moved to slightly forward position
 (36) Moved to forward midrange position
 (37) Moved to completely forward position



(99) Unknown

54. Seat Performance (this Occupant Position) 1
 (0) Occupant not seated or no seat
 (1) No seat performance failure(s)
 (2) Seat adjusters failed
 (3) Seat back folding locks or "seat back" failed
 (specify): _____
 (4) Seat track/anchors failed
 (5) Deformed by impact of occupant
 (6) Deformed by passenger compartment intrusion,
 (specify): _____
 (7) Combination of above (specify): _____
 (8) Other (specify): _____
 (9) Unknown

CHILD SAFETY SEAT

55. Child Safety Seat Make/Model φ φ φ

(000) No child safety seat

Applicable codes are found in your NASS CDS
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat φ

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation φ φ

(00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage φ φ59. Child Safety Seat Shield Usage φ φ60. Child Safety Seat Tether Usage φ φNote: Options below applicable to
Variables OA58-OA60.

(00) No child safety seat

Not Designed With Harness/Shield/Tether(01) After market harness/shield/tether
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market
harness/shield/tether added(09) Unknown if harness/shield/tether
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES61. Injury Severity (Police Rating) 1

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 9

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):

- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 9

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

- (9) Unknown

64. Hospital Stay 99

- (00) Not Hospitalized
- _____ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 97

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

EMERGENCY RESPONSE INFORMATION

EMS Notification

- (1) Not notified
- (2) Notified
- (9) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS NotificationTime

(9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Arrival Time

(9998) EMS cancelled or did not arrive

(9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Departure Time To Treatment Facility

(9997) EMS arrived, provided treatment, but did not transport

(9998) EMS arrived, but was not used

(9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Arrival Time At Treatment Facility

(9999) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Type

- (01) Fire department
- (02) Rescue squad
- (03) Police department
- (04) Trauma unit
- (05) Disaster unit
- (06) Ambulance service unit
- (07) Hospital
- (08) Mortuaries/funeral homes
- (98) Other, specify: _____
- (99) Unknown

ROAD VEHICLE

AIR VEHICLE

EMS Care (on scene or during transport)

- (01) No care administered
- (02) First aid
- (03) Resuscitation
- (04) CPR
- (05) Emergency cardiac care
- (06) Life support system monitoring (blood pressure, pulse rate, respiration, EKG)
- (07) Emergency burn care
- (08) Combination of above, specify: _____
- (98) Other, specify: _____
- (99) Unknown

ROAD VEHICLE

AIR VEHICLE

STOP WORK HERE VARIABLES 66-74 TO BE CODED BY THE ZONE CENTER

TO BE CODED BY THE ZONE CENTER**INJURY CONSEQUENCES**

66. Time to Death φ φ
 _____ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
 (00) Not fatal
 (96) Fatal - ruled disease
 (99) Unknown

67. 1st Medically Reported Cause of Death φ φ

68. 2nd Medically Reported Cause of Death φ φ

69. 3rd Medically Reported Cause of Death φ φ
 _____ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
 (00) Not fatal or no additional causes
 (96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

70. Number of Recorded Injuries for This Occupant 91
 _____ Code the actual number of injuries recorded for this occupant.
 (00) No recorded injuries
 (97) Injured, details unknown
 (99) Unknown if injured

TRAUMA DATA

71. Glasgow Coma Scale (GCS) Score 97
 (at Medical Facility)
 (00) Not injured
 (01) Injured - not treated at medical facility
 (02) No GCS Score at medical facility
 (03-15) Code the actual value of the initial GCS Score recorded at medical facility.
 (97) Injured, details unknown
 (99) Unknown if injured

72. Was the Occupant Given Blood? 9
 (1) No - blood not given
 (2) Yes - blood given
 (specify units): _____
 (9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO₃ 91
 (00) Not injured
 (01) Injured, ABGs not measured or reported
 (02-50) Code the actual value of the HCO₃
 (96) ABGs reported, HCO₃ unknown
 (97) Injured, details unknown
 (99) Unknown if injured

BELT USE DETERMINATION

74. Primary Source of Belt Use Determination 1
 (0) Not equipped/not available/destroyed or rendered inoperative
 (1) Vehicle inspection
 (2) Official injury data
 (3) Driver/occupant interview
 (8) Other (specify): _____
 (9) Unknown if belt used